the date of the funding of the loan by requiring, for example, that a final verification of employment be conducted within several days of the loan's closing.[142]

Originators provided alternative means for self-employed borrowers to prove their income and employment. Self-employed individuals were required to prove the existence of their business with verification from a neutral third party, typically in the form of a business license, tax returns, or a CPA letter (meaning a letter from the borrower's accountant confirming the borrower's income and/or employment information).[143] Originators' guidelines required a self-employed borrower verifying income with full documentation to provide some combination of current and consecutive bank statements, and/or tax returns from the previous 12 or 24 months.[144] A self-employed borrower applying with alternative or limited documentation was usually required to provide some combination of bank statements, an IRS Form 1099 or Form 1040, or a profit and loss statement from the previous six or 12 months.[145]

[142] *See, e.g.*, Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 266; ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066530, at 564; EquiFirst Underwriting Practices Manual, BARC-EF_000000144, at 170.

[143] *See, e.g.*, Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 268; People's Choice Underwriting Policy & Guidelines, JPMC-UWG-BEAR-000211324, at 386; ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066530, at 566, 596.

[144] *See, e.g.*, Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 273-76, 278-79, 282-83, 287-89, 291 (describing documentation requirements for the following categories of self-employed borrowers: consultant, corporation, farming, general partnership, limited partnership, rental, S-corporation, and sole proprietorship); ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066530, at 566; First NLC Underwriting Guidelines, JPMC-UWG-BEAR-000130505, at 524-25.

[145] *See, e.g.*, First NLC Underwriting Guidelines, JPMC-UWG-BEAR-000130505, at 527; Silver State Mortgage Expanded Alt A Underwriting Guidelines, JPMC-UWG-BEAR-000297104, at 124.

In addition, many Originators' guidelines, including those of Alt-A and subprime lenders, generally required a borrower to show two years of steady employment and income.[146] Some Originators' guidelines emphasized the importance of the stability of the stream of income regardless of its source. For example, Fremont's guidelines stated that the "stable and reliable flow of income, rather than the stability of the borrower's employment, is a more significant contributor to the borrower's ability to repay. . . . In view of this, Fremont's underwriting guidelines emphasize the continuity of a borrower's stable income."[147]

Lenders may also have placed some restrictions on the use of alternative programs. For instance, People's Choice did not allow income to be verified by bank statements for C or C+ credit grades and for loans in its 580 80/20 loan program, both of which were considered higher risk loans.[148] And some lenders required that borrowers on a fixed income (*e.g.*, pensions, social security, or disability) had to provide more complete verification of the fixed income.[149]

3. Minimum Industry Standards Regarding Income and Employment Verification Under Full and Reduced Documentation Programs

When a borrower applied for a loan program that required full or reduced documentation, minimum industry standards for assessing a borrower's ability to repay the mortgage required that the underwriter review the documentation to verify the borrower's employment status. Moreover, whether the borrower applied under a full or reduced documentation program, these standards required the underwriter to verify a salaried borrower's employment for the 12 months

[146] *See, e.g.*, Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 264; People's Choice Underwriting Policy & Guidelines, JPMC-UWG-BEAR-000211324, at 380; ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066530, at 595.

[147] Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 264.

[148] People's Choice Underwriting Policy & Guidelines, JPMC-UWG-BEAR-000211324, at 382.

[149] ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066530, at 572, 593.

prior to the loan application.[150] To do so, the underwriter should have obtained at least a verbal VOE or written VOE form signed by the borrower's employer certifying the borrower's date, place, and status of employment.

Verification of employment for a self-employed borrower, at a minimum, required an underwriter to review documentation establishing the borrower's self-employment. Under either a full or reduced documentation program, a self-employed borrower had to establish that his or her business had existed for 12 months, which could be done with a CPA letter, business license, or tax return from the previous year.[151]

Nomura acknowledged the importance of income and employment verification in determining a borrower's ability to repay a mortgage. As Jeffrey Hartnagel testified, if an originator did not obtain a verification of employment, "[t]hen you have questions if it is true or

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[150] For examples of underwriting guidelines that were consistent with this requirement, *see* Ameriquest Mortgage Company Underwriting Guidelines, ML_FHFA 6100812, at 823, 826 (requiring 24 months of income/employment documentation under the full documentation program and 12 months under the limited documentation program); Decision One Underwriting Guidelines, DECISIONONE_FHFA 00000143, at 149-50 (requiring 24 months of income/employment documentation under the "Full Doc" program and a VOE covering the prior 24 months of employment under "Bank Statement" and "Lite Doc" programs); WMC Mortgage Underwriting Guidelines, WMC-FHFA-Cases-00000801, at 880-83 (under WMC's full documentation program, requiring a borrower to provide either 12 months of bank statements or a W-2 form, tax returns, and VOE for the most recent year, while under WMC's limited documentation program, requiring a borrower to provide a W-2 form, tax returns, or 12 months of bank statements).

[151] For examples of underwriting guidelines that were consistent with this requirement, *see* Ameriquest Mortgage Company Underwriting Guidelines, ML_FHFA 6100812, at 823, 826 (requiring a business license and tax returns for the previous two years under the full documentation program and a business license and tax returns from the previous year under the limited documentation program); Decision One Underwriting Guidelines, DECISIONONE_FHFA 00000143, at 149-50 (requiring tax returns from the previous two years under the "Full Doc" program and a business license or CPA letter verifying self-employment with the same company for the prior two years under "Bank Statement and Lite Doc" programs); WMC Mortgage Underwriting Guidelines, WMC-FHFA-Cases-00000801, at 880-83 (requiring a borrower to provide tax returns for at least the previous year under both the full and limited documentation programs).

not. . . . If [the borrower] is employed where he states."[152] For full and alternative documentation loans, Nomura's correspondent underwriting guidelines required both salaried and self-employed borrowers to provide written verification of employment and income for the most recent two years using documentation such as paystubs, W-2 forms, VOEs, and tax returns.[153] Under its lite documentation program available to self-employed borrowers, Nomura required employment to be verified for the prior two years using a VOE, either by contacting the business's CPA or through contacting an independent third-party such as a regulatory agency, and required income to be verified with the prior six months bank or asset statements.[154]

H. Representations Regarding Reasonableness of Income and Employment Verification Under Stated Income Documentation Programs

Between 2002 and 2007, subprime and Alt-A Originators offered reduced documentation programs in which the borrower's income was stated on the loan application but not verified by the lender. Stated income mortgages were designed for borrowers who received sufficiently stable income to meet their monthly mortgage obligations but who lacked the documentation available to traditional wage earners. This category of borrowers included self-employed borrowers who operated a stable business, as well as borrowers who had seasonal income. Other borrowers who had multiple stable sources of income that were difficult to verify were also appropriate candidates for a stated income documentation program.

Reduced documentation requirements did not imply reduced minimum borrower qualification requirements. To the contrary, a stated income loan required the underwriter to use

152 Hartnagel Dep. at 528:3-12.

153 Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05063720, at 771-74.

154 Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05063720, at 775-76.

heightened care to assess the reliability of the borrower's stated employment and income. Without such care, stated income loans were susceptible to overstatement of the borrower's income or outright fraud in the origination process. A borrower's purposeful misstatement of income obviously casts doubt on his or her capacity to repay the mortgage, as it is likely that the income earned is less than stated. Moreover, such a misstatement casts doubt on the borrower's character and increases the credit risk of the loan, as a borrower who is willing to claim an inflated income to obtain a loan is typically less able and willing to repay the mortgage than a borrower who states his or her income honestly.

1. Representations in the Prospectus Supplements Regarding Reasonableness of Income and Employment Verification Under Stated Income Documentation Programs

With respect to stated income loans, where there are no pay stubs or W-2 forms to consult, the assessment of the borrower's ability to repay must include a determination of the reasonableness of the borrower's stated income. Four of the seven Prospectus Supplements contained explicit representations that the originators' guidelines required a borrower's stated income to be reasonable and/or consistent with the borrower's occupation.[155] For example, the NHELI 2006-FM1 Prospectus Supplement represented: "The income is not verified under the Stated Income program; however, the income stated must be reasonable and customary for the applicant's line of work."[156] The reasonableness of a borrower's stated income was a determination necessary for an accurate assessment of the borrower's ability to repay.

155 *See* Exhibit 6, Chart H.

156 NHELI 2006-FM1 Prospectus Supplement, NOM-FHFA_04729474, at 545.

2. Representations in the Originators' Underwriting Guidelines Regarding Reasonableness of Income and Employment Verification Under Stated Income Documentation Programs

For stated income loans,[157] most of the Originators' underwriting guidelines required verification of the borrower's continuous employment for at least two years prior to the loan application.[158] Some Originators required a written or verbal VOE from an employer prior to closing, and the inability to obtain such verification typically rendered the borrower ineligible for the loan.[159] A self-employed borrower was required to prove employment with a CPA letter or a business license.[160]

In addition to verification of employment, the Originators' underwriting guidelines required an assessment of the reasonableness of the borrower's stated income. This assessment required a comparison of the borrower's stated income to other borrower characteristics, such as the borrower's geographic location, occupation, length of experience, and assets.[161] Fremont's

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157 Several of the Originators also allowed for No Income, No Asset ("NINA") loans, which were also known as "No Doc" loans, and/or "No Ratio" loans. *See, e.g.*, Silver State Mortgage Expanded Alt A Underwriting Guidelines, JPMC-UWG-BEAR-000297104, at 153-54. In discussing its NINA loan program, Silver State explained: "These loans do not verify any of the above income information about the borrower. In some cases, the income and/or assets may not even be stated, so ratios cannot be calculated." *Ibid.*, 153. Thus, underwriting for NINA loans relied heavily on the borrower's character as indicated by his FICO score and housing payment history, along with the collateral value.

158 *See, e.g.*, ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066530, at 603; Alliance Mortgage Conduit Alt A Underwriting Guidelines, JPMC-UWG-WAMU-000736544, at 568.

159 *See, e.g.*, Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 266; EquiFirst Underwriting Practices Manual, BARC-EF_000000144, at 170; Silver State Mortgage Expanded Alt A Underwriting Guidelines, JPMC-UWG-BEAR-000297104, at 153.

160 *See, e.g.*, Ownit Mortgage Solutions The Right Loan Underwriting Guidelines, ML_FHFA 6097303, at 363; Alliance Mortgage General Underwriting Guidelines, JPMC-UWG-BEAR-000235485, at 541-42.

161 *See, e.g.*, EquiFirst Underwriting Practices Manual, BARC-EF_000000144, at 186; ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066530, at 602, 606; Silver State

guidelines required underwriters to determine "[i]f there is information in the file that appears to refute or contradict the level of income stated by the borrower" and, if there was, to request additional documentation or consider the application under its Full or Easy documentation programs.[162] As Ownit's underwriting guidelines explained, "[i]n all cases, [the stated] income must be reasonable for the line of work."[163] ResMAE provided an example of a stated income that would not pass its "reasonability test": a borrower who claimed yearly income of $100,000 based on employment as a dishwasher at a hamburger stand.[164] EquiFirst's underwriting guidelines noted that "[o]nline tools such as Salary.com may be utilized as a tool to determine reasonable income."[165]

Additionally, some Originators' guidelines required a full loan application for stated income loans, complete with statements of assets, liabilities, all sources of income, and the sources of liquid closing funds.[166] Originators should have reviewed such applications for inconsistencies with the borrower's stated income, line of work, or assets. Also, a borrower's initial and final loan application should have been reviewed for any inconsistencies, and any red flags should have been investigated.[167]

Mortgage Expanded Alt A Underwriting Guidelines, JPMC-UWG-BEAR-000297104, at 153; Ownit Mortgage Solutions The Right Loan Underwriting Guidelines, ML_FHFA 6097303, at 363; *see also* Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 263.

[162] Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 263.

[163] Ownit Mortgage Solutions The Right Loan Underwriting Guidelines, ML_FHFA 6097303, at 363.

[164] ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066530, at 606.

[165] EquiFirst Underwriting Practices Manual, BARC-EF_000000144, at 186.

[166] *See, e.g.*, Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 232, 265.

[167] *See, e.g.*, ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066401, at 408; *see also* Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 232.

For stated income loans, some of the Originators' guidelines explicitly required verification of any assets that the borrower planned to rely on for closing, reserves, and income (if applicable).[168] For certain Originators, this requirement also served as a means of assessing the reasonableness of the borrower's income, the rationale being that the stated asset base should be consistent with that of a person who makes the borrower's stated income.[169] Finally, the Originators' underwriting guidelines stated that the borrower's credit profile, including the amount of liabilities and repayment history, should be commensurate with the income stated on the loan application.[170]

3. Minimum Industry Standards Regarding Reasonableness of Income and Employment Verification Under Stated Income Documentation Programs

Stated income loans were specialized products available to subprime and Alt-A borrowers who lacked traditional forms of documentation. Absent some assurance about the reasonableness of the borrower's stated income, they were excessively risky. Accordingly, minimum industry standards required an underwriter to assess the reasonableness of the borrower's income when evaluating a stated income application. This assessment entailed several steps. First, the underwriter should have verified that the borrower was employed prior to the loan closing, either through a verbal or written verification of employment.[171] If a self-

[168] *See, e.g.*, Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 308, 311; ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066530, at 582-83.

[169] *See, e.g.*, ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066401, at 408.

[170] *See, e.g.*, ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066401, at 408-12.

[171] For examples of underwriting guidelines that were consistent with this requirement, *see* WMC Mortgage Underwriting Guidelines, WMC-FHFA-Cases-00000801, at 885; New Century Mortgage Underwriting Guidelines, FHFA_NC_0000355, at 369; Countrywide SubPrime Technical Manual, UG1FHFA00010470, at 516; Long Beach Mortgage Company

employed borrower's profession would typically require a license—such as a doctor or a hair stylist—then the underwriter should have verified that license.[172]

Second, the underwriter should have considered whether the borrower's stated income fell within the range of typical incomes for a person of the borrower's stated profession, position within the borrower's company (if the borrower was a salaried worker), geographic location, and length of experience.[173] As New Century's underwriting guidelines explained, the underwriter had to ensure that the borrower's income was "reasonable and customary for the occupation or source."[174] Audit and income verification tools could have been used by the underwriter to assess the reasonableness of the borrower's stated income.[175] WMC's underwriting guidelines,

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Underwriting Guidelines, JPMC-UWG-WAMU-000453475, at 503; Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05063720, at 772; Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05503755, at 795.

[172] For examples of underwriting guidelines that were consistent with this requirement, *see* New Century Mortgage Underwriting Guidelines, FHFA_NC_0000355, at 357; WMC Mortgage Underwriting Guidelines, WMC-FHFA-Cases-00000801, at 885; Countrywide SubPrime Technical Manual, UG1FHFA00010470, at 513 ("Self-employed borrowers require satisfactory evidence of self-employment. . . . A business license or other third-party verification would be needed to link the borrower to ownership of the business.").

[173] For examples of underwriting guidelines that were consistent with this requirement, *see* ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066530, at 602 ("The stated income must be reasonable for the profession and the borrower's tenure."); Silver State Mortgage Expanded Alt A Underwriting Guidelines, JPMC-UWG-BEAR-000297104, at 153 ("A 'Reasonableness Test' is applied to the stated income to ensure that it is appropriate for the job description."); People's Choice Underwriting Policy & Guidelines, JPMC-UWG-BEAR-000211324, at 408 ("The 1003 must be signed at the time of submission and the income must be reasonable for the occupation."); Countrywide SubPrime Technical Manual, UG1FHFA00010470, at 479 ("Income must appear reasonable for the applicant's: Location[,] Occupation[,] Length of experience[, and] Assets").

[174] New Century Mortgage Underwriting Guidelines, FHFA_NC_0000355, at 369.

[175] For examples of underwriting guidelines that were consistent with this requirement, *see* EquiFirst Underwriting Practices Manual, BARC-EF_000000144, at 170; WMC Mortgage Underwriting Guidelines, WMC-FHFA-Cases-00000801, at 885.

In my re-underwriting review, to assess the reasonableness of a borrower's stated income I directed my teams to use salary data provided by BLS. Given the historical nature of my

for instance, recommended that the underwriter consult Salary.com and conclude that the stated income was unreasonable if that source established that the borrower's income was not within 25% of the 75th percentile of Salary.com's index for the borrower's profession.[176]

Nomura itself required incomes on stated income loans to be reasonable for the profession and geographic location. In an email addressed to "All Nomura Due Diligence Vendors," including Clayton and AMC, Joseph Kohout stated that "I expect that as a component of due diligence that the reasonability of income is reviewed and if applicable, questioned."[177] In that same email, Kohout emphasized that if there was any doubt about whether the income was reasonable, there were "a number of tools available on the Internet that provide guidance on income/occupation/geographic area . . . ."[178] This included the website Salary.com.[179] In addition, Nomura's correspondent underwriting guidelines made clear that Nomura may require

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review, some of the ways that an underwriter could have assessed a borrower's income between 2002 and 2007—such as consulting the borrower's verified employment—would be complicated and unreliable to use while reviewing the loan file years after the borrower applied for the mortgage. Therefore, it was sometimes necessary to use third-party salary data. And among third-party sources, the BLS database is the only database I am aware of that offers historical salary data. I considered a borrower's stated income to be unreasonable when it exceeded the 90th percentile of the BLS's index for the borrower's occupation, position, and geographic location. I view this assumption to be generous because using the 90th percentile gave the borrower considerable benefit of the doubt in my analysis.

[176] WMC Mortgage Underwriting Guidelines, WMC-FHFA-Cases-00000801, at 885.

[177] Dep. Ex. 37102 at NOM-FHFA 05500889.

[178] Dep. Ex. 37102 at NOM-FHFA 05500890.

[179] Kohout Dep. at 70:22-71:13; *see also* Spagna Dep. at 75:2-77:25 (testifying that "salary.com was used to check the reasonableness of a stated-income borrower's . . . income based on their . . . occupation and their geographic area" and that the income was not reasonable if it was higher than the range provided by Salary.com).

full or alternative documentation on loans where the stated income was "much larger than reasonably indicated by the borrower's profession [and] time on [the] job[.]"[180]

Third, the underwriter should have compared the income stated on the application to the borrower's asset base.[181] It would cast doubt on the accuracy of the borrower's stated income if the borrower claimed a high income, but had only minimal verified assets. Moreover, the underwriter should have ensured that the borrower's reported assets came from a verifiable source and were "seasoned." For example, if a borrower made a down payment with a large sum of money that the borrower recently received as a gift, then the borrower's ability to make that down payment did not necessarily signify the borrower's ability to meet the monthly mortgage obligations.

Finally, the underwriter should have compared the borrower's credit profile, namely the borrower's credit report, credit score, and assets, to the stated income.[182] In making this

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[180] Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05063720, at 771; *see also* Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05503755, at 795-96 (requiring stated income to be reasonable for the employment).

[181] For examples of underwriting guidelines that were consistent with this requirement, *see* WMC Mortgage Underwriting Guidelines, WMC-FHFA-Cases-00000801, at 884 (instructing underwriters to "[c]ompare [the borrower's] assets and liabilities to [the borrower's] stated income"); Countrywide SubPrime Technical Manual, UG1FHFA00010470, at 515 (instructing underwriters that the borrower's stated income "must be deemed reasonable and consistent with the borrower's profile, including the borrower's . . . assets"); Long Beach Mortgage Company Underwriting Guidelines, JPMC-UWG-WAMU-000453475, at 506 (instructing underwriters to consider, "[d]o the [borrower's] assets reflect a savings level and ability to save consistent with the Stated Income level?"); New Century Mortgage Wholesale Non-Prime Guidelines, CSFHFA009350896, at 905 (instructing underwriters to "consider the borrower's repayment habits and assets to evaluate the reasonableness of the income stated").

[182] For examples of underwriting guidelines that were consistent with this requirement, *see* First Franklin Retail Product Manual, ML_FHFA 6075899, at 937 ("The underwriter must determine that the stated income is reasonable and realistic when compared to the borrower's . . . credit history."); Long Beach Mortgage Company Underwriting Guidelines, JPMC-UWG-WAMU-000453475, at 506 ("Does the borrower profile indicate an ability to manage finances?"); Option One Mortgage Underwriting Guidelines, CSFHFA006552670, at 704-05

comparison, the underwriter should have made sure that the borrower's credit profile was consistent with an individual making the income that the borrower claimed. For example, if a borrower claimed a high income but had a credit profile with a history of late payments and highly utilized credit lines, then that should have indicated to the underwriter that the borrower may have misrepresented his or her income.

Nomura's correspondent underwriting guidelines made clear that they might require additional documentation for stated income loans when a stated income was "much larger than reasonably indicated by the borrower's . . . net worth, or liabilities and credit history."[183] Joseph Kohout's email to Nomura's due diligence vendors stated that "the amount of assets should have some correlation to the stated income."[184] And Jeffrey Hartnagel listed a borrower's asset and credit profiles as part of the overall picture an underwriter should look at to assess the reasonableness of stated income.[185]

I. Representations Regarding Credit Scores, LTV/CLTV Ratios, and DTI Ratios

A borrower's credit score, particularly a FICO score, measures the risk that a particular borrower presents to a creditor. FICO scores are generated by the credit reporting agencies using proprietary models that take into account various historical credit data, including a borrower's payment history and use of credit, any derogatory credit information, and the frequency and number of recent credit inquiries. Based on historical studies, the higher (better) the credit score,

("The stated income must be reasonably based on factors including, but not limited to the: . . . Borrower's current credit profile.").

[183] Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05063720, at 771.

[184] Dep. Ex. 37102 at NOM-FHFA_05500889; *see also* Kohout Dep. at 69:8-24 (explaining that he "would expect that there would be some level of reserves commensurate with the amount of income [the borrower is] stating").

[185] Hartnagel Dep. at 132:2-133:11, 525:11-526:5.

the lower the observed incidence of default.[186] Brett Marvin, a Managing Director at Nomura, agreed that "there [is] a correlation between the borrower's credit score, whether it's FICO or otherwise, and the risk of nonpayment of the mortgage," and that this perception was held by himself, the market, and the rating agencies.[187]

The loan's LTV ratio is an important factor in assessing the borrower's willingness to repay the mortgage.[188] The LTV ratio compares the outstanding balance of the mortgage loan with the value of the mortgaged property at the time the loan was made. The value of the mortgaged property was generally measured as the lesser of the property's appraised value or purchase price (minus any adjustments).[189] A higher LTV ratio indicates that the borrower has less equity in the home and therefore indicates a greater likelihood of default on the mortgage—a borrower who has less equity is more likely to default on mortgage payments if he or she experiences financial distress.[190] In addition, all else being equal, a higher LTV ratio represents

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[186] Board of Governors of the Federal Reserve System, *Report to the Congress on Credit Scoring and Its Effects on the Availability and Affordability of Credit,* S-1 (August 2007), http://www.federalreserve.gov/boarddocs/rptcongress/creditscore/creditscore.pdf.

[187] Marvin Dep. at 151:10-152:23. For another example of a Nomura witness providing testimony on this point, *see* Deposition of James DePalma, dated Nov. 15, 2013 ("DePalma Dep."), at 179:24-180:6 ("Q. . . . [W]ould a low FICO score, all things being equal . . . cause a trend of more delinquencies or default whenever you were doing this? A. Yes.").

[188] The Originators included LTV/CLTV ratio requirements in their guidelines and/or matrices. For examples, *see* Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 334; Ownit Mortgage Solutions The Right Loan Underwriting Guidelines, ML_FHFA 6097303, at 384-99; People's Choice Core Underwriting Matrix, JPMC-UWG-BEAR-000154567, at 567-69.

[189] *See, e.g.*, Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05503755, at 768 ("Loan-to-value ratios are calculated based on the lesser of appraised value or purchase price in the case of purchase transactions and in cash out refinances where the borrower has owned the property less than 12 months."); EquiFirst Underwriting Practices Manual, BARC-EF_000000144, at 157; Ownit Mortgage Solutions The Right Loan Underwriting Guidelines, ML_FHFA 6097303, at 319.

[190] For an example of a Nomura witness admitting as much, *see* Hartnagel Dep. at 65:10-66:11 ("[T]he more equity a borrower has in the property, the least likely he is to default. .

a potentially higher loss severity because a smaller cushion exists between the estimated market value of the property and the unpaid principal balance of the loan, with the incumbent risk that the holder of the loan will not be able to recover the amount of the unpaid principal balance in a foreclosure sale. If a borrower obtains a second-lien mortgage on the property, the CLTV ratio compares the combined balance of the first- and second-lien mortgages against the lesser of either the property's appraised value or purchase price. As with the LTV ratio, all else being equal, a higher CLTV ratio is indicative of a higher risk of delinquency and default.

The borrower's DTI ratio is also an important factor in assessing the borrower's capacity to repay the loan.[191] The borrower's DTI ratio demonstrates the amount of the borrower's monthly income required to pay monthly obligations, including the mortgage loan. To calculate the DTI ratio, the lender must determine all required monthly payments, including the subject loan's principal, interest, taxes and insurance payments ("PITI"), installment and revolving debts along with any additional required obligations, such as child support, and divide that total debt by the borrower's monthly income. Lender's use two forms of DTI calculations. First, the mortgage DTI calculates only the monthly housing debt, or PITI, divided by the monthly income. The second calculation is a total DTI, which measures all monthly obligations. This is sometimes referred to as "the Back-end" ratio and was more often the primary measuring stick of a borrower's capacity. All else being equal, the higher the borrower's DTI ratio, the more

. . Why would you walk away from money?"). Brett Marvin similarly testified that he did not think it was possible to effectively price for the risk of loans with LTVs exceeding 100%. Marvin Dep. at 135:8-138:24.

[191] The Originators' guidelines set maximum DTI ratios, often linked to other loan characteristics such as LTV ratio, loan amount, and loan program. For examples, *see* Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 305; People's Choice Core Underwriting Matrix, JPMC-UWG-BEAR-000154567, at 567-69; Aegis Mortgage Signature Alternative A Matrices and Guidelines, JPMC-UWG-BEAR-000005665, at 668-75.

difficult it is for the borrower to meet his or her monthly mortgage payments, and the greater the credit risk associated with the loan.[192]

These three factors are critical to determining a borrower's ability and willingness to repay a loan. As described below, the Prospectus Supplements made representations about these loan characteristics, including group-level statistics for LTV ratios and DTI ratios. Further, as James DePalma, a Director at Nomura, testified, LTV/CLTV ratios, DTI ratios, and FICO scores were all inputs into the loan loss model Nomura used, and, all else being equal, higher LTV/CLTV and DTI ratios and lower FICO scores increased the risk of delinquencies.[193]

1. Representations in the Prospectus Supplements Regarding Credit Scores, LTV/CLTV Ratios, and DTI Ratios

d. Credit Scores

The Prospectus Supplements for every Securitization represented that originators took FICO scores into account when determining a borrower's ability to repay a mortgage.[194] For example, the NHELI 2007-2 Prospectus Supplement stated: "A satisfactory credit history is the most reliable criterion in determining a borrower's credit worthiness. Ownit relies on the scoring models developed by the national credit bureaus: Experian, TransUnion and Equifax for much of that decision process."[195] The NAA 2005-AR6 Prospectus Supplement represented that under

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192 *See* DePalma Dep. at 179:13-19 ("Do you know if now or at the time you thought it was your understanding that a higher DTI, all things being equal, would lead to a higher chance of delinquency or default when modeling these products? A. Yes."); Dep. Ex. 32706 at NOM-FHFA_05071266 (email from Christopher Scampoli dated Nov. 22, 2006 noting that there is a compliance risk for loans with DTIs greater than 55%, and that any such loan "should be marked ineligible for 'Loan granted without regard for borrower's ability to repay'").

193 DePalma Dep. at 177:7-179:23.

194 *See* Exhibit 6, Chart I.

195 NHELI 2007-2 Prospectus Supplement, NOM-FHFA_05591325, at 414.

"no documentation" programs, the underwriting for mortgages loans may be based primarily or entirely on a borrower's credit score, the appraisal value and/or LTV ratio.[196]

e. LTV Ratios

The Prospectus Supplements for each of the Securitizations contained group-level information about the LTV ratios for the loans in the underlying SLGs.[197] Specifically, the Prospectus Supplements contained tables listing the percentage of loans in each SLG with a LTV ratio at or less than certain percentages. For example the NHELI 2006-FM1 Prospectus Supplement represented that "[t]he Group I Mortgage Loans are expected to have the following additional characteristics as of the Cut-off Date:"[198]

Original Loan-to-Value Ratio of the Group I Mortgage Loans

Original Loan-to-Value Ratio (%)	Number of Mortgage Loans	Aggregate Remaining Principal Balance	% of Aggregate Remaining Principal Balance	Gross Coupon (%)	FICO	LTV (%)	Stated Remaining Term (Months)	Full/Alt Doc (%)
<= 50.00	24	$ 3,910,839	0.96%	7.875	627	42.26	356	7.63
50.01 - 55.00	8	1,762,850	0.43	7.728	586	53.10	357	-
55.01 - 60.00	28	5,419,996	1.34	7.827	570	58.13	356	4.65
60.01 - 65.00	94	16,769,078	4.14	8.463	571	63.61	356	42.78
65.01 - 70.00	122	23,919,568	5.90	8.206	576	68.61	355	40.45
70.01 - 75.00	169	34,485,615	8.51	7.968	576	74.02	356	38.91
75.01 - 80.00	947	169,164,042	41.72	7.237	624	79.80	356	58.09
80.01 - 85.00	190	37,986,798	9.37	7.507	599	84.71	357	59.09
85.01 - 90.00	472	82,740,763	20.41	7.661	622	89.77	356	66.25
90.01 - 95.00	75	7,289,811	1.80	8.427	632	94.72	341	41.70
95.01 - 100.00	403	21,986,828	5.42	9.766	641	99.97	347	59.06
Total:	2,532	$405,436,188	100.00%	7.694	612	81.07	355	54.85

The Prospectus Supplements for all of the Securitizations represented that none of the mortgage loans in the SLGs underlying the Certificates purchased by Fannie Mae and Freddie Mac had LTV ratios over 100%, and all of the Prospectus Supplements represented that the majority of the mortgage loans in the relevant SLGs had LTV ratios of 80% or less. For example, the NAA 2005-AR6 Prospectus Supplement represented that none of the underlying

[196] NAA 2005-AR6 Prospectus Supplement, NOM-FHFA_04811802, at 896.

[197] *See* Exhibit 6, Chart J.

[198] NHELI 2006-FM1 Prospectus Supplement, NOM-FHFA_04729474, at 511, 514.

mortgage loans in the relevant SLG had LTV ratios over 95% and that 98.94% of the underlying loans had LTV ratios of 80% or less.[199]

f. DTI Ratios

Each of the Prospectus Supplements also contained representations regarding the originators' use of the DTI ratio in determining a borrower's ability to repay a loan.[200] The NHELI 2007-3 Prospectus Supplement, for example, represented that ResMAE considered, among other items, the "debt service-to-income ratio" when assessing a borrower's ability to repay a loan.[201] The Prospectus Supplement also provided details about ResMAE's documentation programs, stating that from June 2006 to August 2006 the maximum DTI ratio was 55% for full and limited documentation loans with LTV ratios at or below 85%, while the maximum was 50% for stated income loans, and from September 2006 to November 2006 the maximum DTI ratio was 55% for full documentation loans with LTV ratios at or below 90%, while the maximum was 50% for limited documentation and stated income loans.[202]

2. Representations in the Originators' Underwriting Guidelines Regarding Credit Scores, LTV/CLTV Ratios, and DTI Ratios

All of the Originators' underwriting guidelines contained numerical limits on FICO scores, LTV/CLTV ratios, and DTI ratios. Originators used FICO scores, LTV/CLTV ratios, and DTI ratios in relation to one another to set the parameters of borrower eligibility. For example, Fremont set a minimum FICO score for a subprime borrower at 500, but a borrower

[199] NAA 2005-AR6 Prospectus Supplement, NOM-FHFA_04811802, at 861.

[200] *See* Exhibit 6, Chart K.

[201] NHELI 2007-3 Prospectus Supplement, NOM-FHFA_04732621, at 708.

[202] *Ibid.*, 712.

with that score could not exceed a maximum LTV ratio of 80%.[203] A subprime borrower with a FICO score of 600, on the other hand, could potentially qualify for a loan with a LTV ratio of 100% for a full or easy documentation loan or 90% for a stated income loan.[204] Other Originators had similar cutoffs and restrictions for subprime loans.[205] Guidelines for Alt-A mortgages also took a multi-factored approach when setting minimum FICO scores. For example, under its Alt-A guidelines, Aegis allowed borrowers with a FICO score of 620 to take out a full or alternative documentation loan up to $650,000 on a primary residence or second home with a 95% LTV ratio. To take out a stated income loan of $650,000 on an investment property under those same guidelines, an Alt-A borrower needed a FICO score of 620, with a maximum LTV ratio of 80%.[206] Other Originators also linked FICO scores for Alt-A loans to other requirements, such as LTV ratios, loan amounts, occupancy, and lien position.[207]

While most of the Originators limited eligible borrowers to those with a DTI ratio of 50% or lower, some subprime lenders originated mortgages to borrowers with DTI ratios up to 55%.[208] A subprime borrower who obtained a mortgage with the maximum qualifying ratio of 55%, however, was typically approved with conditions. For example, Equifirst's underwriting guidelines permitted borrowers with a 55% DTI ratio to be approved for full documentation

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[203] *See* Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 249.

[204] *See ibid.*

[205] *See, e.g.*, Ownit Mortgage Solutions The Right Loan Underwriting Guidelines, ML_FHFA 6097303, at 384-85.

[206] *See* Aegis Mortgage Signature Alternative A Matrices and Guidelines, JPMC-UWG-BEAR-000005665, at 673-74.

[207] *See, e.g.*, Alliance Mortgage Conduit Alt A Underwriting Guidelines, JPMC-UWG-WAMU-000736544, at 598-602.

[208] *See, e.g.*, EquiFirst Underwriting Practices Manual, BARC-EF_000000144, at 170; First NLC Credit Matrix, JPMC-UWG-BEAR-000130438, at 438-43; People's Choice Core Underwriting Matrix, JPMC-UWG-BEAR-000154567, at 567-68.

loans on owner-occupied properties only with a maximum LTV/CLTV of 90%, while People's Choice's underwriting guidelines permitted borrowers with a 55% DTI ratio to be approved for loans on owner-occupied properties if the borrower's LTV ratio was no greater than 75%.[209]

Many of the Originators limited the maximum permissible LTV ratio for a subprime or Alt-A mortgage to 95%, depending on factors such as the borrower's credit score and level of income documentation.[210] However, it was not unusual for the underwriting guidelines of some subprime or Alt-A lenders to permit approval of mortgages with CLTV ratios of 100%[211] or LTV ratios of 100%,[212] however such loans could only be approved with conditions. For instance, ResMAE's guidelines permitted approval of first-lien mortgages with LTV ratios of 100% to borrowers in stated documentation programs, provided that (1) the borrower had a credit score of at least 620, a DTI ratio of 50% or less, and no more than one late payment in the previous 12 months; and (2) the property would be owner-occupied.[213]

3. Minimum Industry Standards Regarding Credit Scores, LTV/CLTV Ratios, and DTI Ratios

Mortgage loan originators used credit scores (generally FICO scores), LTV and CLTV ratios, and DTI ratios in conjunction with one another to set the parameters of borrower

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[209] *See* EquiFirst Underwriting Practices Manual, BARC-EF_000000144, at 170; People's Choice Core Underwriting Matrix, JPMC-UWG-BEAR-000154567, 567-68.

[210] *See, e.g.*, Alliance Mortgage Conduit Alt A Underwriting Guidelines, JPMC-UWG-WAMU-000736544, at 598-602.

[211] *See, e.g.*, Aegis Mortgage Signature Alternative A Matrices and Guidelines, JPMC-UWG-BEAR-000005665, at 670-74; Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 334.

[212] *See, e.g.*, Ownit Mortgage Solutions The Right Loan Underwriting Guidelines, ML_FHFA 6097303, at 384-98; Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 334; ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066660, at 692.

[213] ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066660, at 692-93.

eligibility. For each parameter, there were minimum industry standards for maximum or minimum limits. In conducting my assessment, I considered the minimum standard to be the highest DTI and LTV/CLTV ratios, and the lowest FICO scores, allowed under the underwriting guidelines that were prevalent during the relevant time period. These minimums and maximums reflect lenient standards for the origination and underwriting of residential mortgage loans.

During the relevant time period, underwriting guidelines for prime and Alt-A loans required borrowers to have a credit score of at least 620. This was the minimum FICO score required by Nomura for its Alt A Correspondent Underwriting Guidelines.[214] It was also the minimum FICO score required by, for example, Wells Fargo, a leading Alt-A originator.[215] For subprime loans, the minimum credit score was 500, which tracked the minimum FICO score required by WMC, Long Beach and New Century.[216] Going below this minimum FICO score was evidence of a departure from the minimum requirements and a failure to adequately assess the borrower's ability to repay.

The minimum industry standard for the maximum LTV and/or CLTV ratio was 100% for owner-occupied first or second homes.[217] This standard was also consistent with representations

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[214] Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05063720, at 783-85.

[215] Wells Fargo Mortgage Express Alt-A Credit Grade Matrix, GS FHFA 003551054, at 054.

[216] *See* WMC Mortgage Build Your Own Program Matrix, WMC-FHFA-Cases-00004311, at 311; Long Beach Mortgage Company Wholesale Mortgage Rates Matrix, JPMC-UWG-WAMU-000879573, at 573; New Century Mortgage Traditional Matrix, UBS-FHFA-00286730, at 730. In fact, Nomura's diligence team included loans with FICO scores less than 540 as a criteria for its due diligence sample, Dep. Ex. 40913, at NOM-FHFA_04982973, and trade stipulations entered into by Nomura indicated that it would not purchase loans with FICO scores less than 500. Dep. Ex. 39718, at NOM-FHFA_05338820.

[217] *See* Countrywide Loan Program Guide, JPMC-UWG-BEAR-000055397, at 397; WMC Mortgage Build Your Own Program Matrix, WMC-FHFA-Cases-00004311, at 311-12; New Century Mortgage Traditional Matrix, UBS-FHFA-00286730, at 730. In addition, John

made in the Prospectus Supplements that no mortgage loans in the SLGs had LTV ratios exceeding 100%. Further, this minimum industry standard was more lenient than Nomura's underwriting guidelines, which limited LTV ratios to 95% and CLTV to 100%.[218]

Under minimum industry standards, the maximum DTI ratio for borrower eligibility was 55%.[219] Although Nomura's correspondent underwriting guidelines allowed DTI ratios of up to 60%, they were clear that any DTI ratio greater than 50% was subject to a pricing adjustment.[220] In addition, the trade stipulations entered into by Nomura, which established the terms of whole loan trades with loan sellers, provided that Nomura would not purchase loans with DTI ratios greater than 55%.[221]

J. Representations Regarding Owner Occupancy

Owner occupancy refers to the borrower's intended use of a property. Typically, the Prospectus Supplements and underwriting guidelines provided three categories of occupancy: (1) owner-occupied, meaning the borrower intended to use the mortgaged property as a primary residence; (2) second home, meaning the borrower intended to use the mortgaged property as a part-time or vacation home; and (3) investment, meaning the borrower intended to use the mortgaged property to earn income, for example, through rental payments. The occupancy status

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Graham testified that "100 percent LTV would have been the max that was acceptable in the market at the time," and that Nomura did not securitize loans with LTVs greater than 100%. Graham Dep. at 56:24-57:23.

218 Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05503755, at 792; Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05063720, at 783-86.

219 *See* Countrywide Loan Program Guide, JPMC-UWG-BEAR-000055397, at 401; WMC Mortgage Build Your Own Program Matrix, WMC-FHFA-Cases-00004311, at 311-13; New Century Mortgage Traditional Matrix, JPMC-UWG-BEAR-000153727, at 727; Long Beach Mortgage Company Underwriting Guidelines, JPMC-UWG-WAMU-000453475, at 509.

220 Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05063720, at 790.

221 Dep. Ex. 39718 at NOM-FHFA_05338820.

of a mortgaged home was important because borrowers living in a mortgaged property had more incentive to make payments and care for the home than borrowers purchasing second homes or investment properties.[222] As such, mortgages for owner-occupied properties generally presented less credit risk than those for non-owner-occupied properties.[223] Nomura's guidelines recognized the importance of owner occupancy by imposing more stringent requirements on borrowers seeking mortgages on non-owner-occupied homes. For example, the guidelines set the maximum LTV ratio for an investment property at 90% versus 95% for non-investment properties, as well as requiring greater reserves, decreasing allowable seller concessions, and disallowing gifts as a source of funds.[224]

1. Representations in the Prospectus Supplements Regarding Owner Occupancy

The Prospectus Supplements for each of the Securitizations contained group-level information about the occupancy status of the properties underlying the mortgage loans in the SLGs.[225] Specifically, the Prospectus Supplements contained tables listing the percentage of loans where the occupancy status was (1) "primary" or "owner-occupied," (2) "investment" or "non-owner-occupied," and (3) "second home" or "secondary." For example the NHELI 2007-2

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[222] *See* Graham Dep. at 82:24-83:25 (testifying that owner-occupied properties are considered less risky because "someone living in the home on which they are paying the mortgage might be more likely to remain current since it is their home").

[223] *See ibid.*; *see also* DePalma Dep. at 180:10-14 ("Q. And would a purpose other than a primary residence, all things being equal, cause a heightened chance of delinquency or default? A. Yes.").

[224] Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05503755, at 790, 792-93.

[225] *See* Exhibit 6, Chart L.

Prospectus Supplement represented that "[t]he Group I Mortgage Loans are expected to have the following additional characteristics as of the Cut-off Date:"[226]

Occupancy Status of the Group I Mortgage Loans

Occupancy Status	Number of Mortgage Loans	Aggregate Remaining Principal Balance	% of Aggregate Remaining Principal Balance	Weighted Average Mortgage Rate (%)	Nonzero Weighted Average FICO	Weighted Average Original LTV (%)	Weighted Average Stated Remaining Term (Months)	Full/Alt Doc (%)
Owner-Occupied....................	2,731	$ 437,629,409	90.86%	8.267%	618	81.87%	355	66.15%
Investor	228	36,248,500	7.53	8.735	647	80.93	352	42.58
2nd Home	42	7,796,118	1.62	8.680	621	85.50	351	35.77
Total/Weighted Average:.....	**3,001**	**$ 481,674,027**	**100.00%**	**8.309%**	**621**	**81.86%**	**354**	**63.89%**

In all but one of the Prospectus Supplements for the Securitizations, these tables represented that at least half of the properties underlying the mortgage loans in each of the relevant SLGs were owner-occupied.[227] Furthermore, five of the seven Prospectus Supplements for the Securitizations represented that at least 75% of the properties underlying the mortgage loans in the SLGs were owner-occupied, and out of those five, three represented that more than 90% of the properties were owner-occupied.

2. Representations in the Originators' Underwriting Guidelines Regarding Owner Occupancy

Due to the increased credit risk associated with non-owner-occupied homes, many Originators imposed tighter credit requirements on investment properties as opposed to owner-occupied properties. For example, Fremont's maximum LTV ratio for an owner-occupied home was 100%, while its maximum LTV ratio for a non-owner-occupied home was 90%.[228] One of EquiFirst's criteria for allowing a maximum DTI ratio of 55% was owner occupancy; any loan

[226] NHELI 2007-2 Prospectus Supplement, NOM-FHFA_05591325, at 372, 378.

[227] The lone exception is NHELI 2007-1, in which 45.78% of the loans were owner-occupied, though 53.07% of loans as measured by principal balance (*i.e.*, by outstanding loan amount) were owner-occupied. NHELI 2007-1 Prospectus Supplement, NOM-FHFA_05141912, at 2002.

[228] Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 238.

for a property that was not owner-occupied required a DTI ratio of 50% or lower.[229] And People's Choice barred borrowers from its interest-only loan program, mortgage-only loan program, 80/20 loan program, and 40/10 loan program if the underlying property was not owner-occupied.[230]

The underwriting guidelines of certain Originators expressly instructed underwriters to classify a loan as "owner-occupied" only if information in the loan file supported such a classification. For example, First NLC's guidelines stated that the "following conditions must apply":

- The property must be suitable for year-round occupancy
- The borrower must state an intention to occupy the property as the primary residence
- The borrower must occupy the property for a major portion of the year
- The property must be near borrower's place of employment
- The property must be the borrower's legal address of record
- The property characteristics must meet the borrower's needs.[231]

ResMAE similarly listed a variety of potential red flags indicating non-owner occupancy, including an unreasonable commuting distance; file documentation, such as pay stubs, W-2s, tax returns, bank statements, and credit reports, that reflects the borrower living at a different address; that the new housing is not large enough to accommodate all occupants, and; a tenant

229 EquiFirst Underwriting Practices Manual, BARC-EF_000000144, at 170.

230 People's Choice Underwriting Policy & Guidelines, JPMC-UWG-BEAR-000211324, at 422, 425, 430, 436.

231 First NLC Underwriting Guidelines, JPMC-UWG-BEAR-000130505, at 513.

shown as the occupant on an appraisal.[232] People's Choice required underwriters "to use common sense" in making a "second home" classification and instructed underwriters that: "The property type, location and proximity to the borrower's primary residence are major factors to consider. The appraisal may not reflect the property as tenant-occupied. On Full Doc loans, no schedule E income for the property may be disclosed. The Underwriter should condition [sic] for a copy of an electric or phone bill (in the borrower's name) as proof the property is a second home."[233]

3. Minimum Industry Standards Regarding Owner Occupancy

As discussed in Section IX, minimum industry standards required underwriters to investigate potential misrepresentations of occupancy. This could be done by using information in the loan file itself or using information obtained through public records. Nomura's correspondent underwriting guidelines acknowledged the importance of this minimum industry standard, stating:

> Misrepresentation of occupancy is a serious problem in the mortgage industry. Nomura reserves the right to require additional documentation supporting stated occupancy for any loan, including but not limited to documentation of the occupancy status of other real estate owned by the borrower, and will carefully review the entire loan file to ensure that stated occupancy is consistent with all facts and documents presented.[234]

Nomura's due diligence employees similarly acknowledged that underwriters should look for red flags indicating that occupancy had been misrepresented, such as a significant distance

[232] ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066401, at 406, 408, 410.

[233] People's Choice Underwriting Policy & Guidelines, JPMC-UWG-BEAR-000211324, at 346.

[234] Nomura Correspondent Underwriting Guidelines, NOM-FHFA_05063720, at 733.

between the property and the borrower's place of employment or the distance between the primary home and secondary home.[235]

K. Representations Regarding Hazard and Title Insurance

Representations regarding hazard and title insurance are important, because failure to insure the subject property increases the risk presented by the mortgage loan. Hazard insurance is essential because the collateral property serves as a secondary source of repayment for a mortgage loan, and should a fire or other hazard destroy the property, the property would lose some or all of its value as collateral or as a source of repayment. In addition, insufficient insurance coverage could preclude the borrower from repairing or rebuilding the collateral property, thus likewise reducing the collateral's value.

Title insurance protects the borrower and the lender against the possibility of a defect in the property's title. If a previously unknown lien on the property or other title defect is found to exist after closing, it could cause the property to lose value or could frustrate the foreclosure process, which in turn could frustrate the ability to monetize the collateral. Title insurance buffers the property against such a reduction in value. Title insurance guarantees that the lender's lien position is first or second as expected, even if the title company erred in reporting the lien position at or before the mortgage loan closed. Originating a mortgage loan without requiring title insurance protection risks forfeiture of a significant amount of repayment.

1. Representations in the Prospectus Supplements Regarding Hazard and Title Insurance

The Offering Documents for each of the Securitizations represented that the underlying mortgage loans were protected by hazard insurance and title insurance.[236] For example, the

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[235] *See, e.g.*, Sabo Dep. at 47:10-50:4; Hartnagel Dep. at 578:9-579:3, 583:20-584:5.

[236] *See* Exhibit 6, Chart M.

NHELI 2006-FM2 Prospectus Supplement represented: "Fremont requires title insurance on all first mortgage loans, which are secured by liens on real property. Fremont also requires that fire and extended coverage casualty insurance be maintained on the secured property . . . ."[237]

2. Representations in the Originators' Underwriting Guidelines Regarding Hazard and Title Insurance

Many of the Originators' guidelines made explicit the requirement that a mortgaged property be covered by hazard insurance to protect against events such as fire.[238] For example, People's Choice underwriting guidelines stated: "Hazard/Fire insurance is required on all loans. Acceptable evidence of hazard/fire insurance must be received before loan funds are disbursed."[239] In addition, many Originators' underwriting guidelines required title insurance coverage for the mortgaged property.[240] For example, Ownit's underwriting guidelines stated that an "ALTA [American Land Title Association] title insurance policy is required on all loans."[241]

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[237] NHELI 2006-FM2 Prospectus Supplement, NOM-FHFA_04638315, at 397.

[238] *See, e.g.*, Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 242-43; First NLC Underwriting Guidelines, JPMC-UWG-BEAR-000130505, at 544-45; Ownit Mortgage Solutions The Right Loan Underwriting Guidelines, ML_FHFA 6097303, at 379.

[239] People's Choice Underwriting Policy & Guidelines, JPMC-UWG-BEAR-000211324, at 354.

[240] *See, e.g.*, Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 244-45; First NLC Underwriting Guidelines, JPMC-UWG-BEAR-000130505, at 545; People's Choice Underwriting Policy & Guidelines, JPMC-UWG-BEAR-000211324, at 358.

[241] Ownit Mortgage Solutions The Right Loan Underwriting Guidelines, ML_FHFA 6097303, at 383.

3. Minimum Industry Standards Regarding Hazard and Title Insurance

Minimum industry standards required the collateral to be covered by hazard and title insurance.[242] Consistent with this requirement, Nomura required both types of insurance. For example, the Mortgage Loan Purchase Agreement ("MLPA") between Nomura Credit & Capital, Inc. and Nomura Home Equity Loan, Inc. for the NHELI 2006-HE3 transaction represented:

> The Mortgaged Property is insured against loss by fire and hazards of extended coverage (excluding earthquake insurance) in an amount which is at least equal to the lesser of (i) the amount necessary to compensate for any damage or loss to the improvements which are a part of such property on a replacement cost basis or (ii) the outstanding principal balance of the Mortgage Loan.[243]

The MLPA further represented:

> Each Mortgage Loan is covered by a valid and binding American Land Title Association lender's title insurance policy issued by a title insurer qualified to do business in the jurisdiction where the Mortgaged Property is located, which title insurance policy is generally acceptable to Fannie Mae and Freddie Mac.[244]

In addition, Joseph Kohout testified that it was "generally correct" that there was an "industry standard" that borrowers provide proof of title insurance; flood insurance, if required; and hazard insurance prior to the loan closing.[245]

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[242] For examples of underwriting guidelines that were consistent with this standard, *see* First Horizon Underwriting Guidelines, FH-FHFA_03454634, at 648-53, 680-82; WMC Mortgage Underwriting Guidelines, WMC-FHFA-Cases-00000801, at 939-60; Countrywide SubPrime Technical Manual, UG1FHFA00010470, at 543.

[243] NHELI 2006-HE3 Mortgage Loan Purchase Agreement between Nomura Credit & Capital, Inc. and Nomura Home Equity Loan, Inc. dated Aug. 31, 2006, NOM-FHFA_04636755, at 762-63.

[244] *Ibid.*, 763-64.

[245] Kohout Dep. at 148:25-150:5.

L. Representations Regarding the Mortgage Loans' Compliance With Laws

1. Representations in the Prospectus Supplements Regarding the Mortgage Loans' Compliance With Laws

The Offering Documents for every Securitization represented that the underlying mortgage loans were originated in compliance with federal and state laws regarding equal credit opportunities, mortgage recording procedures, and required lender disclosures to borrowers, among other topics.[246] For example, the NHELI 2006-HE3 Prospectus Supplement represented that "each Mortgage Loan complied, at the time of origination, in all material respects with applicable local, state and federal laws including, but not limited to all applicable predatory and abusive lending laws."[247] Every Prospectus Supplement also represented that "no Mortgage Loan is classified and/or defined as a 'high cost', 'covered' or 'predatory' loan under any other federal, state or local law or ordinance or regulation . . . ."[248]

2. Representations in the Originators' Underwriting Guidelines Regarding the Mortgage Loans' Compliance With Laws

Although all mortgage loans are required to comply with federal and state laws, the Originators' underwriting guidelines incorporated this requirement specifically. For example, certain of the Originators' underwriting guidelines recognized that the Truth in Lending Act ("TILA") obligated the lender to provide the borrower with a form notifying the borrower of the right of rescission ("ROR").[249] Based on my experience in the industry, TILA granted borrowers a ROR for a refinance loan, under which the borrower had the right to rescind the refinance loan

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[246] *See* Exhibit 6, Chart N.

[247] NHELI 2006-HE3 Prospectus Supplement, NOM-FHFA_04620885, at 1053.

[248] *Ibid.*

[249] *See, e.g.*, Silver State Mortgage Expanded Alt A Underwriting Guidelines, JPMC-UWG-BEAR-000297104, at 155; Ownit Mortgage Solutions The Right Loan Underwriting Guidelines, ML_FHFA 6097303, at 383.

transaction within three days of closing.[250] The ROR conferred by TILA applied to any refinance loan that created a security interest in the consumer's primary residence.[251]

Additionally, many of the Originators' underwriting guidelines recognized that each mortgage loan file should contain a HUD-1 form, also called a "Settlement Statement" or "Closing Statement," which I understand was required by the Real Estate Settlement Procedures Act ("RESPA").[252] The HUD-1 form itemizes all of the money changing hands at closing, including loan proceeds, taxes, interest, fees, and cash paid out to the borrower, or cash that was due from the borrower. The HUD-1 form also lists any of the borrower's debts that, as a condition of the loan approval, must be repaid at closing.[253] The Originator must make the HUD-1 form available to the borrower for inspection in advance of closing.[254]

Moreover, certain of the Originators' guidelines recognized that TILA required an originator to notify the borrower of the true cost of the loan prior to the loan's closing by providing the borrower a truth-in-lending ("TIL") disclosure.[255] The TIL disclosure should contain information on the loan's annual percentage rate, finance charges, amount financed,

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[250] 15 U.S.C. §§ 1635(a), 1637a; 12 C.F.R. § 226.15(a); 12 C.F.R. § 226.23(a).

[251] 12 C.F.R. § 226.15(a).

[252] 12 U.S.C. § 2603(a); 24 C.F.R. § 3500.8 and Appendix A to Part 3500; *see also* Silver State Mortgage Expanded Alt A Underwriting Guidelines, JPMC-UWG-BEAR-000297104, at 155; First NLC Underwriting Guidelines, JPMC-UWG-BEAR-000130505, at 544.

[253] *See, e.g.*, ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066530, at 579 ("Verification that the debt has been paid must be provided by one of the following: A copy of the HUD-1 …").

[254] 12 U.S.C. § 2603(b); 24 C.F.R. § 3500.10(a).

[255] *See, e.g.*, Fremont Investment & Loan Underwriting Guidelines, LF1UBS_00051222, at 231; Ownit Mortgage Solutions The Right Loan Underwriting Guidelines, ML_FHFA 6097303, at 383; ResMAE Underwriting Guidelines, JPMC-UWG-JPM-000066525, at 527.

schedule of payments, and total payments required.[256] If the disclosed interest basis points and fees were lower than the fees and interest the lender actually required the borrower to pay, the TIL was invalid. The threshold or tolerance for under-disclosure was $100; the lender was in violation of the law if the difference between the revealed and actual payment was greater than that amount.

3. Minimum Industry Standards Regarding the Mortgage Loans' Compliance With Laws

Every mortgage loan was required by minimum industry standards to comply with legal requirements such as TILA, RESPA, and state statutes prohibiting predatory lending and high cost loans.[257] Compliance with these requirements was mandatory,[258] and failure to do so could make it more difficult to foreclose on the property if the borrower defaulted. Consistent with these standards, the MLPA between Nomura Credit & Capital, Inc. and Nomura Home Equity Loan, Inc. for the NHELI 2006-HE3 transaction included the following representation:

> Any and all requirements of any federal, state, or local law including, without limitation, usury, truth in lending, real estate settlement procedures, consumer credit protection, equal credit opportunity, fair housing, predatory, fair lending or disclosure laws

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[256] 12 C.F.R. § 226.5b(d); 12 C.F.R. § 226.18.

[257] For examples of underwriting guidelines that were consistent with this standard, *see* New Century Mortgage Underwriting Guidelines, FHFA_NC_0000266, at 267; New Century Mortgage Underwriting Guidelines, UBS-FHFA-00292075, at 075; WMC Mortgage Underwriting Guidelines, WMC-FHFA-Cases-00000801, at 965-70; Countrywide SubPrime Technical Manual, UG1FHFA00010470, at 545.

[258] 15 U.S.C. §§ 1635(a), 1637a; 12 U.S.C. § 2603(a); 12 C.F.R. § 226.15(a); 12 C.F.R. § 226.23(a); 24 C.F.R. § 3500.8; Appendix A to Part 3500. Under federal law, the determination of whether a loan is "high cost" is made under the Home Ownership and Equity Protection Act ("HOEPA"). The Federal Reserve Board, which administers HOEPA, promulgated 12 CFR Section No. 226.32 (commonly known as Section 32), which applies to closed-end consumer loans originated against a borrower's primary residence (*i.e.*, loans like the Mortgage Loans).

> applicable to the origination and servicing of the Mortgage Loans have been complied with in all material respects[.][259]

Joseph Kohout testified that it was "industry standard" that a lender verify a loan complied with Federal laws and regulations, including HOEPA, RESPA, and TILA.[260] As Neil Spagna put it, with "[c]ompliance there really was no shortcuts."[261]

IX. My Use of Minimum Industry Standards

In instances where no underwriting guidelines were available or the underwriting guidelines were silent regarding key credit characteristics, I integrated into my re-underwriting review a comparison of the Mortgage Loan files with minimum industry standards for assessing a borrower's ability to repay and the adequacy of the collateral. I used the minimum industry standards that I believed, based on my underwriting expertise and knowledge of the industry, constituted the most lenient standards found in underwriting guidelines in the mortgage loan industry between 2002 and 2007, based on the main benchmarks for assessing a mortgage loan's risk. In other words, they were the minimum requirements necessary for even the most lenient originators in the industry to assess a borrower's ability to repay the mortgage and the adequacy of the collateral underlying the mortgage.

The use of minimum industry standards is not unusual and not anything new to the mortgage credit markets. As a major loan purchaser and seller for the bulk of my lending career,

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[259] NHELI 2006-HE3 Mortgage Loan Purchase Agreement between Nomura Credit & Capital, Inc. and Nomura Home Equity Loan, Inc. dated Aug. 31, 2006, NOM-FHFA_04636755, at 763.

[260] Kohout Dep. at 145:18-148:15; *see also* Sabo Dep. at 71:19-74:3 (stating that part of an underwriter's job was to ensure compliance with state and federal regulations); Spagna Dep. at 100:17-105:16 (agreeing that loans need to comply with applicable laws and regulations, including HOEPA, TILA, and RESPA).

[261] Spagna Dep. at 152:7-20; *see also* Sabo Dep. at 120:9-15 (stating that generally there were no compensating factors for compliance exceptions).

loan buyers and sellers have always used common guidelines when trading mortgage loans, both regionally and on a national basis. For instance, the bulk of loan sale transactions historically have identified key guidelines that both parties agreed to, including, but not limited to, characteristics such as DTI ratios, loan sizes (maximum loan size restrictions, oftentimes combined with maximum LTV ratios), and geographic restrictions, especially when certain areas have been identified as potentially problem markets. The evolution of FICO scores in the late 1990's added a new dimension to the business and also started the bifurcation of the market into prime and subprime guidelines.

I distilled the minimum industry standards that were used from 2002 through 2007 from (i) my own extensive experience in the industry and knowledge of standards at that time; (ii) discussions with underwriters on my staff and members of the re-underwriting teams who worked in the mortgage loan industry during that time; (iii) consultation with other re-underwriting experts; and (iv) a review of underwriting guidelines, including manuals, references, matrices, and guides, from originators during that time. These minimum industry standards addressed the most basic, fundamental requirements for underwriting a residential mortgage loan. They do not reflect my assessment of the most prudent underwriting standards, but rather my assessment of the minimum requirements across the industry at that time for different product types.

To confirm the accuracy of these minimum industry standards, I compared them to the guideline requirements of New Century, WMC, Countrywide, and Long Beach—four originators known to have had very lenient origination requirements and practices during this period.[262] I

[262] In November 2008, the United States Treasury Department's Office of the Comptroller of the Currency ("OCC") issued a press release that identified the ten Metropolitan Statistical Areas ("MSA") with the highest foreclosure rates for subprime and Alt-A mortgage

concluded that the minimum industry standards expressed above were generally consistent with these four originators' underwriting guidelines and thus represent the most lenient underwriting requirements in use during the relevant time period. Accordingly, every residential mortgage loan originated from 2002 through 2007 should, at a minimum, have complied with these standards.

I incorporated the minimum industry standards into my re-underwriting review in several circumstances. First, if the underwriting guidelines applicable to the Mortgage Loan were identified, I directed the re-underwriting teams to compare the loan file to the guidelines and to also note violations of any minimum industry standards that the particular underwriting guidelines did not address. For example, underwriting guidelines might not explicitly instruct the underwriter to investigate red flags in the mortgage loan application that suggest that the borrower provided false, misleading, or inaccurate statements about important items such as income, employment, housing history, or debt obligations. However, any competent underwriter would reject an application if it contained indications that the borrower knowingly provided false information with respect to any of those items, and no reasonable originator would approve a mortgage to a borrower who provided false information. The minimum industry standards are designed to address fundamental requirements, such as these and others, which may not be expressly addressed in the underwriting guidelines but are common and essential.

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loans originated between 2005 and 2007. The OCC also ranked the originators responsible for the most foreclosures in those ten MSAs. New Century ranked first, Long Beach ranked second, WMC Mortgage ranked fourth, and Countrywide, which originated a significant number of Alt-A mortgages, ranked eighth. The high rate of foreclosures from these four originators, spread across ten different MSAs, suggests that New Century, Long Beach, WMC, and Countrywide had among the most lenient underwriting standards in the mortgage loan industry between 2005 and 2007. *See* Press Release, Office of the Comptroller of the Currency, United States Department of the Treasury, Worst Ten in the Worst Ten (November 13, 2008), http://www.occ.treas.gov/news-issuances/news-releases/2009/nr-occ-2009-112b.pdf.

Second, I used the minimum industry standards in instances where it was not possible to determine whether the underwriting guidelines produced in discovery were indeed those used to underwrite a given Mortgage Loan. Specifically, I compared the Mortgage Loan file to the minimum industry standards where the underwriting guidelines applicable to the loan's product type produced in discovery had an effective date more than 90 days earlier than the loan's origination date. In these circumstances, I directed the re-underwriting teams to use both the most recent available guideline applicable to that product and the minimum industry standards, which were generally more lenient than the originator's own guidelines.

Third, I used the minimum industry standards to re-underwrite Mortgage Loans where no underwriting guidelines were produced for the product type at issue. This approach was reasonable because even if an originator's precise guidelines used to underwrite a particular Mortgage Loan were difficult to ascertain, those guidelines would have required any Mortgage Loan to meet at least the minimum industry standards.

X. The Re-Underwriting Review of a Random Sample of Mortgage Loans from Each Securitization

I directly supervised the re-underwriting review of a random sample of mortgage loans from each of the relevant SLGs in the Securitizations—723 Mortgage Loans in total. This report includes my opinions regarding the re-underwriting review of these loans.[263]

A. The Selection of Mortgage Loan Files for Re-Underwriting

1. Source of the Mortgage Loan Files

I understand that the loan files for the Mortgage Loans underlying the Securitizations and the applicable underwriting guidelines were produced by Nomura, and that small numbers of

[263] As described above in Section II, *see* Exhibit 2 for a summary of my review of the Mortgage Loans. In addition, the supporting documentation for each identified defect, labeled Exhibit 3, is available on the FTP site accompanying this report.

other loan files and guidelines for certain of the Mortgage Loans were produced by Defendants, FHFA, and third-parties. I understand that approximately 18,000 mortgage loan files were produced across the Securitizations.

2. Sample Methodology

Prior to starting the re-underwriting review I was provided with a list of sample loans that were selected by Dr. Charles Cowan, FHFA's statistical sampling expert. Dr. Cowan's sample included approximately 100 loans from each of the seven SLGs across the Securitizations. It is my understanding that for the sample loans identified for the NAA 2006-AR6 Securitization an insufficient number of loan files was produced. Thus, Dr. Cowan drew an additional random supplemental sample, resulting in a total of 196 sample loans for this Securitization. In total, Dr. Cowan's random sample included 796 sample loans across the Securitizations. Of those 796 loans, I was provided with the loan files and underwriting guidelines for 723 loans—the previously defined "Mortgage Loans." I did not re-underwrite the remaining 73 loans for which I received insufficient documentation.

3. Identification of Mortgage Loan Files

I understand that the Court implemented a process for FHFA and Nomura to meet and confer in order to reach agreement on which documents were the best representation of the mortgage loan files in FHFA's sample at the time of the loans' origination. Where FHFA and Nomura stipulated that certain documents were the best representation of a mortgage loan file, I used those documents to conduct the re-underwriting review.

Where FHFA and Nomura did not agree on the contents of a particular mortgage loan file, I directed the re-underwriting teams to evaluate each file to see whether it contained information sufficient to evaluate the borrower's ability to repay the mortgage and to assess the adequacy of the collateral. I identified seven key documents that would likely contain this

information: (1) final loan application signed by the borrower, (2) credit report, (3) completed appraisal report, (4) completed, final HUD-1 Settlement Statement, (5) truth-in-lending disclosure, (6) executed promissory note, and (7) mortgage or deed of trust. A mortgage loan file that included these documents contained sufficient information to re-underwrite it. A mortgage loan file that did not include one or more of these documents did not necessarily lack sufficient information to re-underwrite the loan. In fact, I generally directed the re-underwriting teams to note a defect if a mortgage loan file was missing one or more of these documents. However, in some instances, files were lacking enough of these documents that the re-underwriting teams could not make findings about the borrower's ability to repay the mortgage and the adequacy of the collateral. If this occurred, I directed the teams not to re-underwrite the mortgage loan.

4. Selecting Applicable Underwriting Guidelines for the Mortgage Loans

Similarly, it is my understanding that the Court implemented a process for FHFA and Defendants to confer about the selection of the applicable underwriting guidelines. This process called for FHFA and Defendants to work together on a good-faith basis to identify all underwriting guidelines applicable to each Mortgage Loan, including all guidelines, updates to these guidelines, matrices, lending manuals, and references guides. Moreover, the Court ordered the parties to endeavor to reach agreement by stipulation that these guidelines and associated files are the best representation of the guidelines and Mortgage Loan file existing at the time of the loan's origination that could be recreated. Where the parties stipulated to the applicable underwriting guideline for a Mortgage Loan, I used that guideline for the re-underwriting review.

During the course of this litigation, thousands of underwriting guideline documents were produced in discovery. These underwriting guidelines were indexed by date, Originator, and subject. To determine the applicable underwriting guidelines for a loan, the re-underwriting

teams—under my supervision—reviewed the (i) Mortgage Loan's originator, (ii) origination channel, (iii) issuance date of the underwriting guidelines, (iv) product type, (v) documentation type, (vi) loan approval type, and (v) date of either the loan origination or loan closing. For example, if a Mortgage Loan was originated through a particular channel or product, the re-underwriting teams matched the loan to the Originator's guidelines for that channel or product. If the origination channel of the loan was unclear, I instructed the re-underwriting teams to use the guidelines from the channel that provided the most current underwriting requirements. If the Mortgage Loan was underwritten using an AUS, then the re-underwriting teams matched the loan to the guideline document detailing the AUS instructions.

Furthermore, to determine the applicable underwriting guidelines for each Mortgage Loan,[264] I instructed the re-underwriting teams to compare the loan's note date[265] to the underwriting guidelines that were most recent in time prior to the note date. The re-underwriting teams were further instructed to employ a waterfall approach to the matching process. The re-underwriting teams initially tried to match underwriting guidelines dated within 30 days prior to the note date of each Mortgage Loan. I used 30 days as a benchmark because in my experience a loan is typically closed within 30 days after it is underwritten. Note date minus 30 days was thus used as a proxy for the application or underwriting date. If underwriting guidelines dated within 30 days were not available, the re-underwriting teams were directed to match the Mortgage Loan

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[264] Tens of thousands of underwriting guideline documents were produced in discovery in this Action and the other related actions pending in the Southern District of New York. Nomura itself produced approximately 390 guidelines, while FHFA produced approximately another 2,000. EquiFirst, Fremont, and ResMAE—Originators in the Securitizations—also produced a total of approximately 300 guidelines. Each of these underwriting guidelines were indexed by date, originator, and subject.

[265] "Note date" refers to the date on which the promissory note funding the Mortgage Loan was issued. It may also be referred to as the "closing date," the "funding date," or the "origination date."

to guidelines that were published within 90 days prior to the note date. Ninety days was still a reasonable time period because loans were frequently underwritten to guidelines that pre-dated the note date by as much as three months. The re-underwriting teams were also instructed that if there were no guidelines available within 30 or 90 days of the note date, to match the Mortgage Loan to the guideline that was closest in time prior to the note date. However, if during the course of the re-underwriting review itself the Mortgage Loan file identified the specific guideline that applied, the re-underwriter was instructed to use the identified guideline to re-underwrite the loan.

B. The Process of Re-Underwriting the Mortgage Loans

1. The Role of Digital Risk, LLC and Opus Capital Markets Consultants, LLC

In the re-underwriting review of the Mortgage Loans, I was assisted by a team of underwriters from Digital Risk, LLC ("Digital Risk") and Opus Capital Markets Consultants, LLC ("Opus").

Digital Risk was founded in 2005 and provides risk, compliance, and transaction management services within the mortgage industry and is owned, managed, and staffed by experienced mortgage industry professionals. Opus, also founded in 2005, provides risk management, due diligence and advisory services for entities within the mortgage industry.

Prior to Digital Risk and Opus starting the re-underwriting review, I vetted the teams that would be reviewing the Mortgage Loans for this case. I interviewed the supervising members of both companies, and reviewed their staffing, qualifications, and experience. The team members used in this engagement from both firms averaged more than a decade of experience in the re-underwriting and underwriting field, with considerable experience and expertise working in each respective company's proprietary review system. I then conducted on-site visits to Opus's office

in Lincolnshire, Illinois, and Digital Risk's principal office in Maitland, Florida, where I observed their operations and systems and met with their re-underwriters.

Thereafter, I communicated with the re-underwriting teams and FHFA counsel at least once a week by phone. In the initial stages, these conference calls were held to provide guidance on the scope of the review. The designated re-underwriting team developed "review plans" for each Securitization, which I reviewed and approved. I instructed the re-underwriting teams to review the Mortgage Loans and applicable guidelines and to record their factual findings when the Mortgage Loans were non-compliant with the underwriting guidelines and standards. I also directed the re-underwriting teams to review public information and other records concerning the borrower and property to determine whether the borrower made misrepresentations at the time of origination and whether the original underwriter was negligent in not pursuing red flags in the loan file. At my direction, the re-underwriters created a factual record reflecting a comparison between the Mortgage Loan and the applicable underwriting guidelines.

During the period in which the re-underwriting teams reviewed the Mortgage Loan files, I continued to participate in weekly conference calls with the lead underwriters at Digital Risk, Opus, and counsel for FHFA. Aside from these weekly conference calls, I spoke and corresponded with the re-underwriting teams when they needed guidance on a particular issue. The re-underwriting teams recorded factual findings and their commentary about the Mortgage Loans pursuant to the instructions I provided to them. As the re-underwriting teams finished their re-underwriting, I reviewed the comments for each Mortgage Loan. When I examined the factual findings, I consulted each loan file, as necessary, and provided feedback to the re-underwriting teams. Sometimes I found additional instances in which the Mortgage Loan did not comply with the underwriting guidelines and thus adjusted the factual findings. Other times, I

disagreed with or wanted specific findings modified, and instructed the re-underwriting teams to do so. If I had questions, I discussed them with the re-underwriting teams, and vice versa. Although I had the assistance of the re-underwriting teams, I made the ultimate determination as to the materiality of the underwriting defects for each of the Mortgage Loans.

2. The Re-Underwriting Review

The re-underwriting process itself included several steps for each Mortgage Loan. In conducting the re-underwriting review, I instructed teams of re-underwriters to review the contents of each Mortgage Loan file and compare them to the following: (1) the representations concerning the Mortgage Loans in the Prospectus Supplement, (2) the applicable Originator's underwriting guidelines, and (3) the minimum industry standards developed in conjunction with this review.

a. Credit Review

The re-underwriting review included a credit component, which consisted of determining whether the loan adhered to the applicable underwriting guidelines and minimum industry standards and determining whether the borrower had the ability and willingness to repay the loan. The credit review consisted of the following steps, among others:

- Reviewing the general loan terms to determine if the loan met the program parameters as established by the underwriting guidelines. In this case, Mortgage Loans were reviewed to determine if the loans were in compliance with the Loan Program and Credit Grade under which the loan was approved.

- Reviewing employment verification documentation to confirm employment represented in the application and to determine whether the borrower met employment stability and documentation requirements when applicable.

- Reviewing the loan approval against all supporting documentation and loan application to determine accuracy of information provided.

- Reviewing the initial loan application against the final loan application or other loan applications found in the file to expose any discrepancies or red flags.

- Comparing the information in the credit report to that in the borrower's application and evaluating the borrower's willingness to repay the debt.

- Reconciling bankruptcy and loss mitigation findings against the original loan file information.

- Recalculating LTV and CLTV ratios using verified information contained in the loan origination file or any applicable third-party sources.

- For stated income loans for non-self-employed borrowers, considering the following factors in assessing the reasonableness of the stated income: (i) credit profile; (ii) type of employment; (iii) length of employment; (iv) housing expenses; (v) assets; (vi) geographic location of employment; (vii) education level; and (viii) information obtained from the BLS.[266]

- For stated income loans for self-employed borrowers, comparing for consistency the borrower's credit profile and other information contained in the loan origination file with the stated income.

- Checking whether the borrower's DTI ratio was within the guideline maximum by re-calculating the borrower's income and debt to determine the correct DTI ratio using information contained in the loan origination file or third-party sources, where the originator was on notice that information in the file was not necessarily complete.

- For purposes of loan tape review, recalculating the borrower's income and debt to determine the correct DTI ratio using information contained in the loan origination file, or third-party sources including bankruptcy filings and credit reports.

- Calculating the borrower's available assets using information the originator knew or should have known at the time of origination.

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[266] The BLS tracks income information based on occupation, title, and geographic area by year. However, it does not account for the borrower's years of experience. To be conservative, I instructed the re-underwriting teams to compare the borrower's stated income with the income for a borrower with the same occupation, job title, and geographic area, for the same time period, at the 90th percentile of the BLS index. If the borrower stated an income that was at or below the income for a similar borrower in the same occupation, job title, geographic area, and time period, at the 90th percentile, I did not conclude that the borrower's stated income was unreasonable. In contrast, if the borrower stated an income that was greater than the income for a similar borrower in the same occupation, job title, geographic area, and time period at the 90th percentile, and there was no indication in the loan origination file that the underwriter made any attempt to assess the reasonableness of the borrower's income, I concluded that the borrower's stated income was unreasonable.

- Reviewing the loan origination file for any red flags that should have required further investigation or raised questions about the validity of any documentation.

- Reviewing the loan origination file in conjunction with the credit report and verifications to determine if there were any misrepresentations as to the occupancy status of the subject property.

- Determining whether the borrower had additional liens and mortgages that were not included in the original loan application or loan origination file.

- Reviewing the title report for possible judgments or other liens that may have existed upon origination, and determining the validity and priority of any liens.

- Reviewing the appraisal in the loan origination file to determine whether property values at origination were supported.

The credit review also included a review of any compensating factors documented in the loan file. I instructed the re-underwriting teams that, if they found a loan that did not comply with underwriting guidelines, they should determine whether any compensating factors existed, as well as whether the loan approval documented any compensating factors. If so, the re-underwriting teams made a preliminary finding about whether the compensating factor(s) offset the credit risk presented by the exception to the underwriting guidelines. I reviewed these preliminary findings and made the final judgment about their accuracy and strength. I evaluated each compensating factor to determine whether one or more were sufficiently strong to offset the identified weakness in the borrower's application package. My primary consideration was, given the identified weakness and the compensating factors, whether the decrease in the mortgage's credit risk presented by the compensating factors was sufficient to offset the increased credit risk that gave rise to the exception request. If I concluded that the compensating factor(s) alone or in combination did, in fact, offset the increased credit risk presented by the exception, then I did not make a defect finding. If, by contrast, the compensating factor did not offset the increased credit risk presented by the exception, then I made a defect finding.

b. Compliance Review

The re-underwriting review also included a determination of whether each Mortgage Loan complied with those aspects of the underwriting guidelines relating to compliance with federal and state law, as well as title and hazard insurance requirements. The steps in the compliance re-underwriting review included:

- Testing whether the Mortgage Loan was a federal "high cost" loan.[267]
- Reviewing the loan file for the presence of a TILA ROR form, a final HUD-1 statement, and TIL disclosure detailing the costs of the mortgage pursuant to TILA.
- Reviewing the loan file for evidence of required insurance.

c. Appraisal Review

The re-underwriting review also included a collateral review to determine whether the mortgaged property was appraised in accordance with the underwriting guidelines and minimum industry standards. The steps in the collateral review included:

- Verifying that the appraisal was performed by a licensed and qualified appraiser.
- Determining whether the appraiser followed the appraisal procedures set forth in the underwriting guidelines.
- Determining whether the appraisal complied with USPAP.
- Reviewing the appraisal and other appraisal-related documents in the Mortgage Loan file for completeness.
- Reviewing the loan file to see if the underwriter properly reviewed the appraisal report and properly used the appraised value versus the sales price in determining the LTV ratio.

[267] Under federal law, the Home Ownership and Equity Protection Act ("HOEPA") is the basis for determining whether a loan is "high cost." The Federal Reserve Board, which administers HOEPA, promulgated 12 CFR Section No. 226.32, commonly known as Section 32. Section 32 applies only to closed-end consumer loans originated against a borrower's primary residence.

- Evaluating whether the value of the subject property adequately supported the loan amount.

d. Recalculation of LTV and CLTV Ratios

For purposes of determining whether the LTV and CLTV ratios in the Prospectus Supplements were accurate, the LTV/CLTV ratios for each Mortgage Loan were recalculated based on the valuation of the subject properties conducted by Dr. John Kilpatrick, FHFA's appraisal expert. I have reviewed Dr. Kilpatrick's qualifications and discussed his work on this engagement with him. Dr. Kilpatrick holds a Ph.D. in real estate finance and is the C.E.O. of Greenfield Advisors. He teaches and publishes widely in the area of appraisal. From time to time, I have participated in conference calls with the re-underwriting teams and Dr. Kilpatrick. It is my understanding that Dr. Kilpatrick is submitting an expert report in this action regarding the valuation of the properties collateralizing the Mortgage Loans. Dr. Kilpatrick used an AVM to determine objective valuations of the subject properties at the time of origination. I used Dr. Kilpatrick's valuations in lieu of the original appraised values in order to recalculate the LTV and CLTV ratios of the Mortgage Loans.

For purposes of determining whether the LTV/CLTV ratios exceeded the maximum allowable under the underwriting guidelines, the LTV/CLTV ratios were calculated by the re-underwriting teams using information contained in the loan file, by dividing the loan amount by the lower of the appraised value or sale price of the property. They were also recalculated using Dr. Kilpatrick's AVM values. I considered both recalculations when assessing a maximum LTV/CLTV ratio breach.

e. Recalculation of Owner-Occupancy Statistics

In addition, the re-underwriting review included a review of owner occupancy status to assess the accuracy of the representations made by the borrowers and the disclosures made in the Offering Documents by Defendants. The owner occupancy review included:

- Reviewing the Mortgage Loan file for red flags indicating that the borrower did not occupy the subject property. For instance, consideration was given to factors such as the distance between the borrower's place of employment and the subject property, whether the borrower listed a primary address that was different from the subject property, and whether the subject property was significantly smaller in size or value than the borrower's current home without an immediately apparent reason.

- Reviewing loan servicing records, where available, for evidence that the borrower did not occupy the subject property after closing.

- Reviewing borrower and property records, including public records, bankruptcy filings, and consumer credit reports, to see whether the borrower claimed a different primary residence than that of the subject property, or if there was a change of address within 12 months after origination of the Mortgage Loan. Twelve months was chosen as the benchmark, because most of the Mortgage Loan files contained agreements certifying that the borrower would occupy the mortgaged property for at least one year.[268]

Based on the re-underwriting teams' factual findings, I made the final determination as to whether the representations regarding the occupancy status of the subject properties were accurate or not.

f. Quality Control Review of the Factual Findings

The factual re-underwriting results received multiple levels of quality control. At the completion of the factual re-underwriting review, I selected a random sample of at least 12% of the Mortgage Loans from each Securitization (the "QC Sample") and directed quality control teams of experienced mortgage loan underwriters within Freddie Mac and Fannie Mae to

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[268] *See, e.g.*, NHELI_2006_FM2_2001987494, NHELI_2006_HE3_2001915223, and NHELI_2007_1_200211713 as examples of misrepresentations of occupancy.

evaluate the factual re-underwriting findings made by the re-underwriting teams. The quality control teams engaged in the same factual finding process as the re-underwriting teams. For each loan in the QC Sample, the quality control teams reviewed the loan files and the applicable underwriting guidelines, and undertook the steps in the credit, appraisal, and compliance review I detailed above. The quality control teams strictly identified factual findings and did not opine on the effect of those findings on the credit quality of the Mortgage Loan. If the quality control teams disagreed with a factual finding made by the re-underwriting teams, the quality control teams provided a comment explaining their finding, which was forwarded back to the re-underwriting teams for consideration and an opportunity to respond. I did not communicate directly with the quality control teams about their findings, but rather reviewed their comments.

After the Mortgage Loans had been reviewed by both the re-underwriting teams and quality control teams, my team of experienced personnel next reviewed the Mortgage Loan factual findings. At my direction and under my supervision, they evaluated the re-underwriting findings to determine whether the findings were supported by documentation or information reviewed by the re-underwriting teams. After my personnel had re-evaluated the factual findings and made their recommendations, I reviewed each loan finding and made the final determination about the impact of the underwriting defects on the credit risk of each Mortgage Loan.

g. Rendering an Opinion on Each Mortgage Loan

In rendering an opinion on each Mortgage Loan, I personally reviewed all of the Mortgage Loan files (either in whole or in part), the re-underwriting teams' factual findings, the quality control teams' comments, the comments and recommendations of my personnel, and the supporting documents for the individual findings. I then made a determination of whether the identified underwriting defects as a whole impacted the credit risk of a particular Mortgage

Loan. Each Mortgage Loan is different. It may have been the case that for one loan, multiple findings did not substantially increase the credit risk associated with the loan, whereas for another loan, just one finding might have a substantial impact.

Based on this approach, I rendered one of the following conclusions for each Mortgage Loan:

1. It is my opinion, to a reasonable degree of professional certainty, that this Mortgage Loan was originated with one or more underwriting defects[269] that substantially increased the credit risk[270] associated with the Mortgage Loan.

2. It is my opinion, to a reasonable degree of professional certainty, that although this Mortgage Loan was originated with one or more underwriting defects, the underwriting defects did not substantially increase the credit risk associated with the Mortgage Loan.

3. Based on the documents provided to me, I did not find any underwriting defects in the origination of this Mortgage Loan.

XI. My Opinions Regarding the Mortgage Loans

A spreadsheet containing a summary of my review of the Mortgage Loans is attached as Exhibit 2. Additionally, the supporting documentation for each identified defect, labeled Exhibit 3, is contained on the FTP site accompanying this Report. I have included below a summary of certain categories of underwriting breaches that were more prevalent across the Mortgage Loans.

A. Many of the Mortgage Loans Did Not Comply With the Originators' Underwriting Guidelines or the Minimum Industry Standards

My re-underwriting review revealed that a majority of the Mortgage Loans were not underwritten in accordance with the Originators' underwriting guidelines. Moreover, these loans were not documented as exception loans and did not otherwise contain compensating factors that

[269] I use the phrase "underwriting defects" expansively to include credit defects, appraisal-related defects, compliance defects, and/or inaccuracies in the data contained on the mortgage loan schedule or pre-closing loan tapes.

[270] I use the term "credit risk" expansively to include default risk, foreclosure risk, and collection risk.

offset the increased credit risk associated with the exception to guidelines. Across the Mortgage Loans, there were approximately 100 different kinds of violations of underwriting guidelines. The details for each of these guideline breaches can be found in my findings and conclusions contained on Exhibit 2, and several examples can be found in the sections below.

The following chart summarizes the number of Mortgage Loans that were not originated in conformity with underwriting guidelines and that lacked sufficient compensating factors.

Securitization	Number of Mortgage Loans Reviewed	Number of Mortgage Loans with Defects	Percentage of Mortgage Loans with Defects	Number of Mortgage Loans with Defects & Substantially Increased Credit Risk	Percentage of Mortgage Loans with Defects & Substantially Increased Credit Risk
NAA 2005-AR6	131	71	54.19%	66	50.38%
NHELI 2006-FM1	100	90	90.00%	78	78.00%
NHELI 2006-FM2	100	95	95.00%	84	84.00%
NHELI 2006-HE3	99	80	80.80%	69	69.69%
NHELI 2007-1	98	69	70.40%	65	66.32%
NHELI 2007-2	98	80	81.63%	72	73.46%
NHELI 2007-3	97	81	83.50%	67	69.07%
Total	**723**	**566**	**78.28%**	**501**	**69.29%**

In addition to not complying with the originators' underwriting guidelines, my re-underwriting review revealed that many of the Mortgage Loans were not underwritten in accordance with minimum industry standards. The chart below summarizes the number of Mortgage Loans in the Securitizations that were not underwritten in accordance with underwriting guidelines and/or minimum industry standards, and did not have sufficient compensating factors to support this exception to guidelines or standards.

Securitization	Number of Mortgage Loans Reviewed	Number of Mortgage Loans with Defects	Percentage of Mortgage Loans with Defects	Number of Mortgage Loans with Defects & Substantially Increased Credit Risk	Percentage of Mortgage Loans with Defects & Substantially Increased Credit Risk
NAA 2005-AR6	131	113	86.25%	102	77.86%
NHELI 2006-FM1	100	93	93.00%	81	81.00%
NHELI 2006-FM2	100	96	96.00%	85	85.00%
NHELI 2006-HE3	99	87	87.87%	75	75.75%
NHELI 2007-1	98	83	84.69%	79	80.61%
NHELI 2007-2	98	92	93.87%	77	78.57%
NHELI 2007-3	97	90	92.78%	72	74.22%
Total	**723**	**654**	**90.46%**	**571**	**78.98%**

B. The Originators Failed to Investigate Red Flags in Certain Mortgage Loans

Certain Mortgage Loan files contained red flags, which indicated potential misrepresentations of employment, income, occupancy, or the borrower's debt obligations. However, there was no evidence in these files that the originators investigated or considered such red flags. For example, a loan in the NHELI 2006-FM1 Securitization was originated based on a stated income of [redacted] per month as a [redacted] plus an additional [redacted] per month in rental income. The loan file, however, contained a verification of employment indicating that the borrower made only [redacted] per hour, as well as a second copy of that same verification in which the document had been altered and the income whited out. Due to the verification of income in the loan file, the underwriter should have underwritten this transaction as a full documentation loan, but instead underwrote the transaction as a stated income loan. Further, the loan file did not contain a rental agreement as required by the guidelines to verify rental income. These red flags should have been investigated. A re-calculation of the borrower's DTI ratio based on the income

reflected in the verification of employment yields a DTI ratio of [redacted] which exceeds the guideline minimum of 55%.[271]

For a loan in the NAA 2005-AR6 Securitization, the borrower took out six refinance mortgages in the 10 months prior to the loan closing date, none of which were disclosed on the loan application. Of those six, three were originated with the same lender as the subject loan, Silver State. In reality, the borrower had a total of five mortgage loans from Silver State, which exceeded the underwriting guideline's limit of four mortgage loans per borrower. In addition, there was no explanation in the loan file as to why a condition was cleared on a [redacted] deposit made into the borrower's bank account. A re-calculation of the borrower's DTI ratio based on the correct debt amount yields a DTI ratio of [redacted], which exceeds the guideline maximum of 50%.[272]

The chart below summarizes the number of Mortgage Loans in the Securitizations where there was a failure to investigate red flags regarding potential misrepresentations of income, employment, debt obligations, housing history, or occupancy status.

[271] Global Loan Number NHELI_2006_FM1_2001835587, Finding IDs 17797939, 17794352, and 17794099.

[272] Global Loan Number NAA_2005_AR6_1001918371, Finding IDs 146f493e-0695-e311-8ed7-d8d385e1d166, e8ba8a10-0795-e311-8ed7-d8d385e1d166, and 39b2759f-a1c5-e311-8daf-d8d385e1d166.

Securitization	Number of Mortgage Loans Reviewed	Number of Mortgage Loans with Defects	Percentage of Mortgage Loans with Defects	Number of Mortgage Loans with Defects & Substantially Increased Credit Risk	Percentage of Mortgage Loans with Defects & Substantially Increased Credit Risk
NAA 2005-AR6	131	16	12.21%	16	12.21%
NHELI 2006-FM1	100	11	11.00%	9	9.00%
NHELI 2006-FM2	100	13	13.00%	13	13.00%
NHELI 2006-HE3	99	12	12.12%	12	12.12%
NHELI 2007-1	98	12	12.24%	12	12.24%
NHELI 2007-2	98	9	9.18%	9	9.18%
NHELI 2007-3	97	14	14.43%	13	13.40%
Total	**723**	**87**	**12.03%**	**84**	**11.62%**

C. Certain Mortgage Loans Did Not Contain Required Credit Information

As discussed above, a loan underwriter must have certain credit documents and key information in order to evaluate the borrower's ability and willingness to repay a mortgage loan. My re-underwriting review uncovered many Mortgage Loans for which critical information was missing from the loan files, such as: (1) a final loan application; (2) the borrower's credit report; (3) documentation verifying the borrower's employment; (4) documentation verifying the borrower's income; (5) documentation verifying the borrower's assets, and (6) a history of the borrower's payment of mortgage or rent payments. In many instances, a failure to obtain information required under the governing underwriting guidelines substantially increased the credit risk of the Mortgage Loans because the credit risk could not have been assessed properly. For example, one loan file for a Mortgage Loan in the NHELI 2006-FM2 Securitization was missing the required verification of employment, and the pay stubs used to verify the borrower's income were incomplete—missing the employer's name and the borrower's net earnings. Furthermore, although the lender's guidelines required a verification of mortgage or other payment history confirming the last 12 months of housing payments, the loan file

contained only an incomplete print out of an online mortgage history statement showing four months payment history.[273] As another example, a loan file for a Mortgage Loan in the NHELI 2006-HE3 Securitization was missing a verification of mortgage payments; a fully complete loan application and HUD-1 (both of which were missing information regarding the borrower's current mortgage); a verification of deposit; and the two months of bank statements required by the underwriting guidelines.[274]

The chart below details the number of Mortgage Loan files that failed to contain certain required credit information and that exhibited substantially increased credit risk.

Securitization	Number of Mortgage Loans Reviewed	Number of Mortgage Loans with Defects	Percentage of Mortgage Loans with Defects	Number of Mortgage Loans with Defects & Substantially Increased Credit Risk	Percentage of Mortgage Loans with Defects & Substantially Increased Credit Risk
NAA 2005-AR6	131	35	26.71%	34	25.95%
NHELI 2006-FM1	100	36	36.00%	36	36.00%
NHELI 2006-FM2	100	41	41.00%	41	41.00%
NHELI 2006-HE3	99	29	29.29%	28	28.28%
NHELI 2007-1	98	18	18.36%	18	18.36%
NHELI 2007-2	98	31	31.63%	31	31.63%
NHELI 2007-3	97	27	27.83%	26	26.80%
Total	**723**	**217**	**30.01%**	**214**	**29.60%**

D. Certain Mortgage Loans Did Not Contain Explanations for Recent Credit Inquiries

Many of the Mortgage Loan files demonstrated a failure to investigate recent credit inquiries of the borrower. This failure is a significant underwriting error because, in many

273 Global Loan Number NHELI_2006_FM2_2002231336, Finding IDs 18357248, 17814780, and 17817370.

274 Global Loan Number NHELI_2006_HE3_2002016135, Finding IDs 17798086, 18368566, 17798136, and 17796893.

instances, undisclosed borrower debts would have been uncovered if the underwriter had followed up on unexplained credit inquiries. The failure to account for all debts skews the DTI ratio and understates the level of credit risk posed by a Mortgage Loan. For example, a Mortgage Loan was included in the NHELI 2007-1 Securitization in which the borrower's credit report indicated numerous inquiries from other credit companies, yet the underwriter failed to request from, or receive from, the borrower an explanation of these inquiries. Subsequent investigation identified seven new mortgages obtained by the borrower within 30 days of the subject loan's closing. The undisclosed debts increased the borrower's DTI ratio from [redacted] to [redacted]—far in excess of the guideline maximum of 50%.[275]

Another loan underlying the NHELI 2007-1 Securitization (that closed on September 19, 2006) also included numerous credit inquiries on the origination credit report, without any indication that the underwriter received an explanation for these inquiries. Subsequent investigation indicates that the borrower opened [redacted], none of which were disclosed on the application. The total amount of outstanding debt from these undisclosed mortgages was [redacted]. This undisclosed debt increased the borrower's DTI ratio from 17.27% to 75.52%—far in excess of the guideline maximum of 50%.[276]

The number of Mortgage Loans with unexplained credit inquiries and substantially increased credit risk is set forth in the table below.

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[275] Global Loan Number NHELI_2007_1_2002211938, Finding IDs 17829480 and 18425368.

[276] Global Loan Number NHELI_2007_1_2002237147, Finding ID 17831229.

Securitization	Number of Mortgage Loans Reviewed	Number of Mortgage Loans with Defects	Percentage of Mortgage Loans with Defects	Number of Mortgage Loans with Defects & Substantially Increased Credit Risk	Percentage of Mortgage Loans with Defects & Substantially Increased Credit Risk
NAA 2005-AR6	131	57	43.51%	49	37.40%
NHELI 2006-FM1	100	71	71.00%	61	61.00%
NHELI 2006-FM2	100	66	66.00%	55	55.00%
NHELI 2006-HE3	99	60	60.60%	49	49.49%
NHELI 2007-1	98	41	41.83%	38	38.77%
NHELI 2007-2	98	70	71.42%	55	56.12%
NHELI 2007-3	97	64	65.97%	48	49.48%
Total	**723**	**429**	**59.34%**	**355**	**49.10%**

E. The Originators Failed to Assess Income Reasonableness for Certain Stated Income Loans

The re-underwriting results show that the reasonableness of the borrower's stated income was not tested for many of the stated income Mortgage Loans.[277] The failure to do so led to substantially increased credit risk of stated income Mortgage Loans included in the Securitizations. For example, a borrower of a Mortgage Loan included in the NHELI 2007-1 Securitization stated on the final loan application a monthly income of [redacted] as a [redacted] at a hair salon. An unsigned and undated loan application in the loan file reflected a different income of [redacted] a month. The loan approval showed that the lender used the higher income of [redacted] from the unsigned application to approve the loan. According to a verification of

[277] I have compiled in Exhibit 8 some examples of Mortgage Loans where the borrower's stated income was patently unreasonable and the originator nonetheless used the stated income to calculate the DTI ratio in approving the loan. To illustrate the significance of the underwriter's failure to assess the reasonableness of the borrower's income, I have recalculated the DTI ratio based on an assessment of a more reasonable income level. To be clear, Exhibit 8 is for illustration purposes only—I did not make any underwriting defect findings for excessive DTI ratios based solely upon the unreasonableness of a stated income.

employment in the loan file, the borrower's position was a [redacted]. The borrower's stated income of [redacted] per month for a [redacted] is more than 1.5 times the $3,620 monthly average salary at the 90th percentile for this occupation, as reported by BLS, and should have put the underwriter on notice for potential misrepresentation. Using the more reasonable income of $3,620 results in a re-calculated DTI ratio of [redacted], which greatly exceeds the DTI ratio of [redacted] used to approve the loan.[278]

Similarly, another borrower of a Mortgage Loan underlying the NHELI 2007-1 Securitization stated an income of [redacted] per month as a [redacted]. This is nearly four times the $5,943 per month average salary at the 90th percentile reported by BLS for [redacted] in 2006 in the same geographic region. There was no documentation in the loan file to indicate that the reasonableness of the borrower's stated income was investigated.[279]

The chart below summarizes the number of Mortgage Loans in each of the Securitizations where, for stated income loans, the income stated by a borrower was reasonably not credible, and yet uninvestigated.

[278] Global Loan Number NHELI_2007_1_2001856494, Finding IDs 17809978 and 17818320.

[279] Global Loan Number NHELI_2007_1_2002018486, Finding ID 17830273.

Securitization	**Number of Stated Income Mortgage Loans Reviewed**	**Number of Stated Income Mortgage Loans with Defects**	**Percentage of Stated Income Mortgage Loans with Defects**	**Number of Stated Income Mortgage Loans with Defects & Substantially Increased Credit Risk**	**Percentage of Stated Income Mortgage Loans with Defects & Substantially Increased Credit Risk**
NAA 2005-AR6	66	17	25.76%	16	24.24%
NHELI 2006-FM1	27	12	44.44%	12	44.44%
NHELI 2006-FM2	40	14	35.00%	14	35.00%
NHELI 2006-HE3	34	13	38.24%	13	38.24%
NHELI 2007-1	50	20	40.00%	20	40.00%
NHELI 2007-2	28	14	50.00%	14	50.00%
NHELI 2007-3	27	4	14.81%	4	14.81%
Total	**272**	**94**	**34.56%**	**93**	**34.19%**

F. Certain Mortgage Loans Failed to Comply with Credit Requirements

1. Certain Mortgage Loans Exceeded LTV or CLTV Ratio Limits

Certain of the Mortgage Loans had LTV/CLTV ratios in excess of the maximum permitted by governing underwriting guidelines without sufficient compensating factors. Specifically, when the loan transaction occurred within six to twelve months of a prior sale, there were instances when the original underwriter improperly used an appraised value rather than the sales price to calculate the LTV ratio. When the LTV ratio was recalculated using the information required by the underwriting guidelines, it often exceeded the limits set by the guidelines. For example, a Mortgage Loan included in the NHELI 2006-HE3 Securitization was approved as a refinance loan with an 85% LTV. The property had been initially purchased by the borrower less than six months before the borrower applied for the refinance loan. Thus, according to the applicable underwriting guidelines, the LTV ratio should have been calculated by using the lower, initial purchase price of [redacted], rather than the appraised value of

[redacted]. This would have resulted in a LTV ratio of [redacted], exceeding the guideline maximum of 85%.[280]

As another example, a Mortgage Loan in the NHELI 2007-2 Securitization was approved with an 90% LTV/CLTV ratio based on a purchase price of [redacted] and a loan amount of [redacted]. However, the underwriter failed to include a second lien of [redacted] in the CLTV calculation. Once corrected, the actual CLTV ratio was [redacted]. Both the LTV ratio of [redacted] and the re-calculated CLTV ratio of [redacted] exceeded the guideline maximums of 80% LTV ratio and 100% CLTV ratio for an owner-occupied purchase transaction under the full documentation program.[281]

In addition to recalculating the LTV/CLTV ratios based on information contained in the Mortgage Loan files, I also recalculated the LTV/CLTV ratios using the valuation results from Dr. Kilpatrick's AVM. As a result, there were many Mortgage Loans that contained LTV and CLTV ratios in excess of the guideline maximums, without exception approval. The chart below summarizes the number of Mortgage Loans in each of the Securitizations where the LTV/CLTV ratios were incorrect, as recalculated either using information contained in the loan file or using Dr. Kilpatrick's AVM results.[282]

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[280] Global Loan Number NHELI_2006_HE3_2002174715, Finding IDs 18425666, 18425645, and 17795891.

[281] Global Loan Number NHELI_2007_2_2002212716, Finding IDs 17831983 and 17836072.

[282] Exhibit 2 reflects the LTV/CLTV re-calculations under both scenarios. The above chart reflects breaches if either recalculation for a given Mortgage Loan exceeded the LTV/CLTV maximum stated in the Underwriting Guidelines.

Securitization	Number of Mortgage Loans Reviewed	Number of Mortgage Loans with Defects	Percentage of Mortgage Loans with Defects	Number of Mortgage Loans with Defects & Substantially Increased Credit Risk	Percentage of Mortgage Loans with Defects & Substantially Increased Credit Risk
NAA 2005-AR6	131	22	16.79%	22	16.79%
NHELI 2006-FM1	100	24	24.00%	24	24.00%
NHELI 2006-FM2	100	26	26.00%	26	26.00%
NHELI 2006-HE3	99	29	29.29%	29	29.29%
NHELI 2007-1	98	21	21.42%	21	21.42%
NHELI 2007-2	98	30	30.61%	30	30.61%
NHELI 2007-3	97	23	23.71%	23	23.71%
Total	**723**	**175**	**24.20%**	**175**	**24.20%**

2. Certain Mortgage Loans Exceeded DTI Ratio Limits

Although the DTI ratio is an important measure of credit risk, I found that in certain instances, the underwriter failed to properly calculate the borrower's DTI ratio using information that was available at the time. As a result, certain Mortgage Loans were given to borrowers with DTI ratios in excess of the maximum permitted by the applicable underwriting guidelines, and without sufficient compensating factors. For example, a borrower of a loan underlying the NAA 2005-AR6 Securitization was approved with a DTI ratio of [redacted], based on a monthly income of [redacted] and monthly debt obligations of [redacted]. The lender, however, miscalculated the qualifying income by including monthly rental income of [redacted] in the borrower's total income while also using it to offset the borrower's housing payment. Furthermore, the borrower's debt obligations were misrepresented on the loan application. An audit credit report revealed that one month prior to the loan's closing, the borrower took out two loans totaling [redacted], with total monthly payments of [redacted]. Neither of these debts was disclosed on the borrower's loan application or included in the lender's debt calculation. A recalculation of the borrower's DTI

ratio based on the borrower's actual income and debt obligations resulted in a DTI ratio of [redacted], far in excess of the DTI ratio of [redacted] used to approve the loan.[283]

In another example, a Mortgage Loan included in the NHELI 2007-3 Securitization was approved as a full documentation loan with a DTI ratio of [redacted], based on monthly retirement income of [redacted] for the borrower and [redacted] for the co-borrower. The retirement income documentation in the loan file, however, revealed an actual monthly income of only [redacted] for the borrower and [redacted] for the co-borrower. It is unclear how the underwriter derived the income amounts used to approve the loan. Using the borrowers' verified income to recalculate the DTI ratio resulted in a ratio of [redacted], which exceeded the maximum DTI ratio of 55% permitted under the lender's guidelines.[284]

The number of Mortgage Loans associated with borrowers that had DTI ratios above the amount initially used to approved the loans is summarized below.

Securitization	Number of Mortgage Loans Reviewed	Number of Mortgage Loans with Defects	Percentage of Mortgage Loans with Defects	Number of Mortgage Loans with Defects & Substantially Increased Credit Risk	Percentage of Mortgage Loans with Defects & Substantially Increased Credit Risk
NAA 2005-AR6	131	17	12.97%	17	12.97%
NHELI 2006-FM1	100	17	17.00%	17	17.00%
NHELI 2006-FM2	100	19	19.00%	19	19.00%
NHELI 2006-HE3	99	28	28.28%	28	28.28%
NHELI 2007-1	98	19	19.38%	19	19.38%
NHELI 2007-2	98	10	10.20%	10	10.20%
NHELI 2007-3	97	20	20.61%	20	20.61%
Total	**723**	**130**	**17.98%**	**130**	**17.98%**

283 Global Loan Number NAA_2005_AR6_1002123751, Finding IDs f0b3faa9-f78c-e311-8ed7-d8d385e1d166, c9f206cf-f58c-e311-8ed7-d8d385e1d166, and 7b912433-f68c-e311-8ed7-d8d385e1d166.

284 Global Loan Number NHELI_2007_3_2001932486, Finding IDs 17807284 and 17807248.

G. The Prospectus Supplement Collateral Tables Overstated the Owner-Occupancy Status of the Underlying Mortgage Loans

In my re-underwriting review, I found that certain Mortgage Loans were represented as owner-occupied but did not, in fact, appear to be occupied by the owner of the subject property. As such, these Mortgage Loans were incorrectly included in the "primary" or "owner-occupied" categories in the Prospectus Supplements' collateral tables, as described in Section VIII(J)(1).

For example, the subject property for a cash-out refinance loan underlying the NHELI 2006-FM1 Securitization was represented as owner-occupied. The loan application signed by the borrower represented that the borrower had owned and occupied the subject property for the past 2.8 years. The loan file also contained an executed address certification reflecting the subject property as the borrower's current address. The origination credit report, however, indicated that the subject address did not match the borrower's credit file. Furthermore, the borrower's credit card statements and canceled checks reflected a different address from the subject property. Public records revealed that the borrower never maintained utility services at subject address, and also showed several other individuals as occupants prior to the closing date.[285]

As another example, the subject property for a refinance loan included in the NHELI 2007-3 Securitization was represented by the borrower and approved by the lender as an owner-occupied property. The borrower represented on the loan application that the property had been the borrower's primary residence for 6 months. The origination credit report, however, reflected that the subject address did not match the borrower's credit file. Public records indicated that other individuals occupied the subject property before and after the loan's closing date and also

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[285] Global Loan Number NHELI_2006_FM1_2002009090, Finding ID 17798827.

that the borrower maintained utility services at another property located on the same street as the subject property. The other property owned by the borrower had six bedrooms and three bathrooms, with a total living area of 1,802 square feet, compared to the subject property which had only two bedrooms and one bathroom, and a total living area of 813 square feet.[286]

The chart below details the number of Mortgage Loans in the Securitizations in which the subject properties were incorrectly represented as being owner occupied in the Prospectus Supplements' collateral tables

Securitization	Number of Mortgage Loans Identified as Owner-Occupied on Closing Loan Tape	Number of Mortgage Loans Misrepresented as Owner-Occupied on Closing Loan Tape	Percentage of Mortgage Loans Misrepresented as Owner-Occupied on Closing Loan Tape
NAA 2005-AR6	63	13	20.63%
NHELI 2006-FM1	91	16	17.58%
NHELI 2006-FM2	93	21	22.58%
NHELI 2006-HE3	89	20	22.47%
NHELI 2007-1	49	4	8.16%
NHELI 2007-2	91	16	17.58%
NHELI 2007-3	91	16	17.58%
Total	**567**	**106**	**18.69%**

H. Information Contained On The Pre-Closing Loan Tapes Did Not Match the Credit Characteristics of Many of the Mortgage Loans

As part of the securitization of a pool of mortgage loans, Nomura provided to the credit rating agencies loan tapes containing a detailed listing of the mortgage loans it intended to include in a particular securitization, and the specific credit characteristics of each of those loans. It is my understanding that the purpose of the pre-closing loan tapes was to provide accurate data

[286] Global Loan Number NHELI_2007_3_2001856719, Finding ID 17820372.

and summary information about the credit characteristics of the mortgage loans included in the securitization so that a credit rating agency could assess the risk of the certificates issued pursuant to the securitization. In particular, I understand that the primary determinants of the credit ratings given to a securitization were the FICO scores, LTV and CLTV ratios, DTI ratios, and owner-occupancy status of the underlying mortgage loans. Therefore, it was imperative that the information contained on the pre-closing loan tapes be accurate. If the data contained on the pre-closing loan tape differed from the information contained in the loan origination files, the loan tape would not accurately reflect the true credit risk associated with the individual mortgage loans and the pool of mortgage loans included in the securitization.[287]

I reviewed the contemporaneous loan tapes containing the credit characteristics of the Mortgage Loans underlying the Securitizations, including the FICO scores, LTV and CLTV ratios, DTI ratios, and owner-occupancy status. Nomura produced several loan tapes with information about the Mortgage Loans underlying each Securitization, but did not produce information identifying the loan tapes that were provided to the ratings agencies. Therefore, I understand that the loan tapes I reviewed were those that bore the closest statistical resemblance to the information contained in the Prospectus Supplements. Based on the re-underwriting

[287] *See, e.g.*, Marjan Riggi & Navneet Agarwal, *US Subprime-Overview of Recent Refinements to Moody's Methodology*, MOODY'S, July 2007, at 2 (explaining that Moody's considered LTV ratio, CLTV ratio, FICO score, and occupancy type in calculating its risk assumptions for loans); Bill Hunt, *ResiLogic: U.S. Residential Mortgage Loss Model Technical Document*, FITCH RATINGS, January 18, 2007, at 3, 8 (listing the closing balance of the mortgage loan, CLTV ratio, occupancy, and FICO score as several of the loss severity data factors); *RMBS: U.S. Residential Subprime Mortgage Criteria: Credit Analysis for Subprime Loan Transactions*, S&P, September 1, 2004, at 3 (explaining that "[t]he base foreclosure frequency of a prime pool for each rating category is affected by changes in loan characteristics such as . . . [l]oan to value (LTV) ratios, . . . [o]ccupancy status, . . . [and] [l]oan size"), at 10 (describing that "[t]he base loss severity assumptions for each rating category are affected by factors such as . . . [l]oan to value (LTV) ratios, . . . [l]oan balance, . . . [and] [p]roperty type and occupancy").

review of the Mortgage Loans, there are numerous instances where the information contained on the pre-closing loan tapes concerning the credit characteristics of those loans was not accurate.

The table below summarizes the number of Mortgage Loans with discrepancies from the information contained in the loan tapes.

Securitization	Number of Mortgage Loans Reviewed	Number of Mortgage Loans with Defects	Percentage of Mortgage Loans with Defects	Number of Mortgage Loans with Defects & Substantially Increased Credit Risk	Percentage of Mortgage Loans with Defects & Substantially Increased Credit Risk
NAA 2005-AR6	131	63	48.09%	60	45.80%
NHELI 2006-FM1	100	55	55.00%	55	55.00%
NHELI 2006-FM2	100	63	63.00%	63	63.00%
NHELI 2006-HE3	99	65	65.65%	61	61.61%
NHELI 2007-1	98	50	51.02%	46	46.93%
NHELI 2007-2	98	61	62.24%	56	57.14%
NHELI 2007-3	97	55	56.70%	49	50.51%
Total	**723**	**412**	**56.98%**	**390**	**53.94%**

XII. Conclusion

Based on my re-underwriting review of the Mortgage Loans in the Securitizations, it is my opinion to a reasonable degree of professional certainty that 78.98% of the Mortgage Loans reflected increased credit risk as a result of deficiencies in the original underwriting process. The chart below summarizes the number and percentage of Mortgage Loans in the Securitizations that suffered from underwriting defects that substantially increased the credit risk associated with the Mortgage Loans.

Securitization	Number of Mortgage Loans Reviewed	Number of Mortgage Loans with Substantially Increased Credit Risk	Percentage of Mortgage Loans with Substantially Increased Credit Risk
NAA 2005-AR6	131	102	77.86%
NHELI 2006-FM1	100	81	81.00%
NHELI 2006-FM2	100	85	85.00%
NHELI 2006-HE3	99	75	75.76%
NHELI 2007-1	98	79	80.61%
NHELI 2007-2	98	77	78.57%
NHELI 2007-3	97	72	74.23%
Total	**723**	**571**	**78.98%**

In addition, it is my opinion to a reasonable degree of professional certainty that:

1. 78.28% of the Mortgage Loans in the Securitizations were not originated in accordance with the requirements of the relevant originator's underwriting guidelines.

2. 90.46% of the Mortgage Loans in the Securitizations were not properly evaluated to determine if they were at risk of not being repaid or not adequately supported by the collateral.

3. 24.62% of the Mortgage Loans in the Securitizations had a loan-to-value ("LTV") ratio and/or combined loan-to-value ("CLTV") ratio that was not accurately disclosed.

4. 18.69% of the Mortgage Loans in the Securitizations had mortgaged properties that were inaccurately disclosed as being owner-occupied.

5. 56.98% of the Mortgage Loans in the Securitizations had characteristics, such as FICO scores, LTV and CLTV ratios, owner-occupancy status, property types, or loan amounts that were inconsistent with the pre-closing loan tapes.

Dated: May 15, 2014

ROBERT W. HUNTER